

## **PROGRAMMATIC AGREEMENT**

**Among**

**THE FEDERAL TRANSIT ADMINISTRATION (FTA)  
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION (ACHP)  
THE MARYLAND TRANSIT ADMINISTRATION (MTA)  
AND  
THE MARYLAND STATE HISTORIC PRESERVATION OFFICER (MHT)  
REGARDING THE**

**RED LINE PROJECT IN  
BALTIMORE CITY AND BALTIMORE COUNTY, MARYLAND**

**WHEREAS**, The Baltimore Red Line (RL) is a 14.1 mile Light Rail Transit (LRT) line extending from western Baltimore County at the Centers for Medicare & Medicaid Services through the downtown central business district (CBD) to the Johns Hopkins Bayview Medical Center campus in eastern Baltimore City (**Exhibit A**);

**WHEREAS**, the Federal Transit Administration (FTA) is considering providing funding to the Maryland Transit Administration (MTA) pursuant to Section 5309, this is a federal undertaking subject to Section 106 of the National Historic Preservation Act of 1966, as amended (codified at 16 USC § 470f) and its implementing regulation at 36 CFR part 800 and herein “Section 106”;

**WHEREAS**, MTA is the Red Line Project sponsor and FTA is serving as the Red Line lead federal agency pursuant to the National Environmental Policy Act (NEPA, codified as 42 USC 4321 *et seq.*), and is the federal agency responsible for compliance with Section 106);

**WHEREAS**, after detailed study of various alternatives and consideration of efforts to avoid and minimize certain project impacts, FTA and MTA have defined a Preferred Alternative for design and construction; and

**WHEREAS**, as the result of a consultative process in accordance with Section 106; FTA, MTA, and the Maryland Historical Trust, (MHT, the Maryland State Historic Preservation Office, have determined that it is appropriate to enter into this Programmatic Agreement (PA), pursuant to Section 800.14(b) of the regulations implementing Section 106 (codified at 36 CFR Part 800, and herein the “Section 106 Regulations”);

**WHEREAS**, the FTA in consultation with MHT has established the Red Line’s Area of Potential Effects (APE, **Exhibit B**);

**WHEREAS**, FTA has demonstrated compliance with Section 106, pursuant to 36 CFR § 800.8, and afforded the MHT and other consulting parties, including Baltimore Heritage, Baltimore City Commission on Historic and Architectural Preservation (CHAP), Baltimore County Office of Planning (BCOP), The Society for the Preservation of Federal Hill and Fell’s Point, Anchorage Homeowners Association, Baltimore Harbor Watershed Association, Canton Community Association, Canton Cove Association, Canton Square Homeowners Association, the Waterfront Coalition and the United States General Services Administration) opportunities to comment and consult on the Red Line as part of the Section 106 process;

**WHEREAS**, as part of the Section 106 process, 78 historic properties that are eligible for or listed in the National Register of Historic Places are present within the Red Line’s APE;

**WHEREAS**, through the Section 106 process, FTA has determined that Red Line will have an adverse effect on historic properties under Section 106. An adverse effect occurs when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for listing the NRHP in a manner that would diminish the integrity of the property's location, design, setting, workmanship, feeling, or association. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative. Specifically, five historic properties will be adversely affected. These historic properties are the Poppleton Fire Station; Business and Government Historic District; South Central Avenue Historic District; Fell's Point Historic District; and Public School No. 25 (Captain Henry Fleete School) ;

**WHEREAS**, the FTA notified the Advisory Council on Historic Preservation (ACHP) of the Undertaking's Adverse Effect on November 6, 2012 and has invited the ACHP to participate in the Section 106 process for the Red Line; and the ACHP [has accepted/has declined]

**WHEREAS**, generally, historic properties can be categorized as Archeological Resources or Built Historic Properties (see 36 CFR § 800.16(1)); and this PA specifies the appropriate approaches for Red Line Built Historic Properties and Archeological Resources in the Red Line APE separately, due to the different issues presented by each category;

**WHEREAS**, as documented in the Phase IB Archeological Workplan, dated July 30, 2012, FTA and MTA, in consultation with MHT, identified 23 areas with the potential to contain Archeological Resources in the Red Line APE, in which construction activities might occur. These properties are listed in **Exhibit C** and presented in **Exhibit D**;

**WHEREAS**, it is possible that as the Red Line evolves or as a result of the addition of new project elements beyond the boundaries of the current APE, FTA, MTA, in consultation with MHT, may amend the Red Line APE; this PA sets forth measures that shall be implemented for identified or any other built historic properties or archaeologically sensitive areas within the current or future-modified APE;

**WHEREAS**, FTA has identified and contacted nine federally-recognized Native American tribes, including the Absentee-Shawnee Tribe of Oklahoma, the Delaware Nation, the Delaware Tribe of Indians, the Eastern Shawnee Tribe, the Oneida Indian Nation, the Onondaga Nation, the Saint Regis Mohawk Tribe, the Shawnee Tribe, and the Tuscarora Nation. In addition, FTA has identified and contacted state-recognized tribes with cultural ties to the project area, including the Piscataway Indian Nation, Inc., and Piscataway Conoy Confederacy and Subtribes, Inc., and the Cedarville Band of Piscataway Indians;

**WHEREAS**, FTA and MTA shall complete a reasonable and good faith effort to identify, contact, and seek the involvement of any descendant groups or communities associated with the areas potentially sensitive for human remains that may be affected by the Red Line;

**WHEREAS**, this PA was developed with appropriate public participation during the Section 106 process and a copy of this agreement was included in and distributed with the FEIS. The public shall be duly notified as to the execution and effective dates of this PA through the issuance of the FTA Record of Decision for the Red Line;

**WHEREAS**, unless defined differently in this PA, all terms are used in accordance with Section 106;

**WHEREAS**, MHT agrees that fulfillment of the terms of the PA will satisfy the responsibilities of MTA and any Maryland state agency under the requirements of the Maryland State Historic Preservation Law (5A-325 and 5A-326 of the State Finance and Procurement Article, Annotated Code of Maryland);



**NOW, THEREFORE,** FTA, ACHP, MTA, and MHT agree that Red Line shall be implemented in accordance with the following stipulations to ensure that adverse effects on historic properties shall be taken into account.

Whereas, MTA has participated in consultation and has been invited to sign this PA as an invited signatory.

## **STIPULATIONS**

**FTA WILL INCLUDE THE OBLIGATIONS SET FORTH IN THIS AGREEMENT AS PART OF THEIR RECORD OF DECISION AND A CONDITION OF FTA APPROVAL OF ANY GRANT ISSUED FOR CONSTRUCTION OF THE RED LINE TO ENSURE THAT THESE MEASURES WILL BE IMPLEMENTED AS PART OF THE COMPLIANCE WITH THE SECTION 106 PROCESS AND THE SUBSEQUENT PLANNING, DESIGN, AND CONSTRUCTION OF ANY APPROVED RED LINE ALTERNATIVE.**

### **I. CULTURAL RESOURCE MANAGEMENT TEAM**

#### **A. QUALIFICATIONS**

1. A Cultural Resources Management Team (CRMT) will be established for the Final Design and Construction phases of the project. The CRMT shall be comprised of a team of personnel meeting *The Secretary of the Interior's Professional Qualifications Standards* (36 CFR 61 Appendix A) (hereinafter cited as "qualifications") with appropriate experiences and background in History, Architectural History, Historic Architecture, and Archeology, as appropriate.

#### **B. DUTIES**

1. Prior to construction, MTA will retain a CRMT throughout the period of design and active construction that might impact historic properties or as otherwise agreed to by the MTA and MHT.
2. The CRMT will establish a single point of contact for historic properties.
3. The CRMT will develop a Cultural Resources Management Plan (CRMP) that includes measures to protect built historic properties and archeological resources prior to and during construction of the Red Line. The CRMP will also outline and define roles and responsibilities of CRMT and construction contractors.
4. The CRMT will be on-site at all times when there is a potential for historic properties (including both built historic properties and archeological resources) to be affected by the construction and will take responsibility to monitor all construction activities that may affect historic resources.
5. For archaeological resources, the CRMT will be on-site during all excavation activities throughout the areas of archeological sensitivity, as identified in **Exhibits C and D**.
6. The CRMT will train all members of the on-site contractor staff of the stipulations outlined in this Programmatic Agreement and any documents that pertain to the protection of historic resources prior to the commencement of work and at regular intervals not to exceed six months. A requirement to cooperate with the CRMT will be included in all design and construction contracts related to the Red Line Project. A copy of this training (presentation and handouts) will be provided to the consulting parties for review and comment prior to implementation.

7. The CRMT will be required to assist MTA and the FTA in the preparation of status reports related to historic preservation issues.

## **II. BUILT HISTORIC PROPERTIES STIPULATIONS**

FTA has determined through the Section 106 process that the Red Line will have adverse effects on five historic properties due to construction activities and/or the siting of project-related infrastructure. It is possible that additional, previously unidentified historic properties may be identified within the Red Line's APE in the future or in the area of any new project elements (see II.C. below) and that these previously unidentified properties may be affected by the Red Line. Accordingly, this Programmatic Agreement sets forth the following measures that will be implemented for all built Historic Properties within the Red Line's APE.

### **A. Construction Protection Plan**

To avoid Red Line-related construction damage to any known or unknown built historic property as set forth in II.C., MTA, in consultation with FTA and MHT, will develop construction protection plans for built historic properties; these plans will include best practices and contractor requirements that will avoid, minimize, and mitigate adverse effects. **Exhibit E** provides a list of procedures that will be included in the Construction Protection Plans, which will be developed prior to construction of the project. MTA shall ensure that any built historic properties for which findings of adverse effect have been made will be included in a Construction Protection Plan and MTA shall implement such plans as appropriate.

### **B. Design Specifications Governing Permanent Visual Adverse Effects**

FTA and MTA have determined, through the Section 106 process, that the Red Line has the potential to result in permanent visual adverse effects and changes to the historic setting to the Poppleton Fire Station, Business and Government Historic District, South Central Avenue Historic District, Fell's Point Historic District and Public School No. 25 (Captain Henry Fleete School). MTA, in consultation with the MHT, will consult on design specifications to address any permanent Red Line elements that may affect the historic setting of a built historic property in the Project's APE, and are compatible with the historic and architectural qualities of that property to avoid, minimize, or mitigate these adverse effects.

### **C. Identification of Additional Built Historic Properties and Assessment of Project Effects**

If additional built historic properties not previously identified in the Section 106 process are identified in the Red Line APE during Final Design or Construction of the Red Line, or if new project elements are added to the Red Line in areas that were not previously assessed for the presence of built historic properties as part of the Section 106 process, MTA will consult with MHT to evaluate eligibility and effects, if needed, in accordance with the Section 106 process.

### **D. Consultation with MHT Regarding Built Properties**

MTA shall submit any plans developed pursuant to design specifications governing permanent visual adverse effects described in II.B to FTA, MHT and CHAP in advance of any construction that may result in any such effects. FTA's, MHT's and CHAP's review and comment on such submissions shall be governed by the process set forth in Stipulation IV.

#### **E. Historic American Buildings Recordation**

MTA shall complete Historic American Buildings Survey Level II documentation for buildings that will be demolished in the Business and Government Historic District and for the Poppleton Fire Station. MTA shall consult with National Park Service staff to determine the appropriate repository for this documentation. If NPS does not want to include the documentation in its holdings, MTA shall submit to MHT and post the documentation on the project's web-based cultural resources map (see II.G, below).

#### **F. Fell's Point Historic District Walking Tour**

MTA shall execute a Fell's Point Historic District Walking Tour to be executed as a pamphlet with a printing of 1,000 copies and an accompanying application and website. The information contained in the brochure shall be made available electronically to the Society for the Preservation of Federal Hill and Fell's Point.

#### **G. Historic Properties Web-based Map**

MTA shall execute a web-based map hosted by the project showing the locations of all historic properties in the APE; additional existing documentation and any project-related documentation (photographs, DOE forms, NR nominations, HABS/HAER recordation) will be added to the historic property polygons as project documentation progresses.

#### **H. Interpretive Plan**

MTA shall execute interpretive work for each station for a consistent system-wide interpretive plan; this will include at a minimum historic panels and associated applications and a website discussing the unique historic properties and history of the neighborhood of each station and showing historic photographs of each area. MTA will consult with all consulting parties to determine the scope and content of interpretive efforts. MTA will develop a brief interpretive plan after this consultation and will distribute to consulting parties for review and comment prior to executing the final document.

#### **I. NRHP Documentation**

MTA shall update the South Central Avenue National Register of Historic Places nomination, including contributing/noncontributing delineations; MTA shall also execute additional National Register nominations for three properties within the APE, to be determined after consulting with consulting parties, that are not formally listed. MTA shall primarily consider properties that may benefit from the listing by taking advantage of historic preservation tax credits.

### **III. ARCHEOLOGICAL RESOURCES**

Red Line could have potential adverse effects on Archeological Resources. It is possible that additional, previously unidentified Archeological Resources may be identified within the Red Line APE, and that the Undertaking may affect these previously unidentified properties.

Accordingly, this PA sets forth the following measures that will be implemented for Archeological Resources within the Red Line APE.

**A. Treatment of Archeological Resources**

The Phase IA Archeological Assessment conducted for the Red Line project has demonstrated that the project could have potential direct adverse effects on Archeological Resources (see **Exhibits C and D**) as a result of construction. Treatment for these resources to avoid and/or minimize adverse effects will be developed by MTA as part of continuing consultation with MHT.

**1. Identification**

In archeologically sensitive areas not subject to prior archeological identification investigations, including Sensitivity Areas BC-3 through BC-14, BC-17 and BC-18, MTA shall complete and report survey efforts to identify resources potentially eligible for inclusion on the National Register that may be impacted by the undertaking. MTA shall ensure that the work is accomplished in accordance with the relevant procedures specified in Stipulation III.A and performance standards in Stipulation III.F.

**2. Evaluation**

In consultation with the MHT and in accordance with 36CFR 800.4(c), MTA shall evaluate the National Register eligibility of any identified Archeological site that may be impacted by the undertaking, identified by completion of the survey efforts in Stipulation III.A.1 above and for the Ward Farmstead Site (18BA582), which has not been subject to prior archeological evaluation investigation. MTA shall ensure that the work is accomplished in accordance with the relevant procedures specified in Stipulation III.A and performance standards in Stipulation III.F.

**3. Mitigation, Data Recovery, Curation, and Public Interpretation**

For each site identified as meeting the Historic Properties Criteria, FTA and MTA, in consultation with MHT, will consider measures, such as design modification, for avoidance of Archeological Resources (**Exhibit F**). For those sites identified as meeting the Historic Properties Criteria where FTA and MTA determine, in consultation with MHT, that avoidance is not practicable, MTA, in consultation with MHT, will develop and implement a Data Recovery Plan. The Data Recovery Plan will be designed to recover data sufficient to address significant research issues and test assumptions, and, thus, substantially preserve the Archeological value of Section 106-protected sites. The Data Recovery Plan will be consistent with the:

- *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* ((48 FR 44716; 1983 and successors);
- *Standards and Guidelines for Archeological Investigations in Maryland* (Shaffer and Cole 1994);
- *Standards for Cultural Resource Investigations and the Curation of Archeological Collections in Maryland* (1994);

- *Recommended Approach for Consultation on Recovery of Significant Information from Archeological Sites*, ACHP 1999 (64 FR 27085-27087), and the
- Advisory Council on Historic Preservation handbook *Treatment of Archeological Resources* (1980).

MHT shall review and comment on such plan and will be governed by the process set forth in IV.A that follows. MTA will be responsible for the implementation of such a plan, as appropriate.

In advance of any mitigation or data recovery efforts undertaken pursuant to III.A.3, MTA, in consultation with MHT, will develop, in accordance with 36 CFR Part 79, an Analysis and Curation of Material and Records Plan for any Archeological excavations. MHT review and comment on such plans will be governed by the process set forth in IV.A that follows. MTA will be responsible for the implementation of such a plan, as appropriate.

In advance of data recovery or mitigation efforts, MTA will develop a plan to provide interpretive materials to the public in consultation with MHT (**Exhibit F**). This activity will follow the document review process identified in Stipulation IV. Upon the development of an acceptable public outreach plan, MTA will ensure the plan is implemented.

## **B. Construction and Archeological Phasing Plan**

MTA will take practical steps to initiate and complete Archeological field analysis and data recovery (depending on site access and testing feasibility) prior to Red Line construction activities. MTA, in consultation with MHT, will develop a plan to appropriately phase the Archeological field analysis and data recovery with construction activities (**Exhibit G**). MHT review and comment on such a plan will be governed by the process set forth in IV.A that follows.

## **C. Additional Evaluation for Red Line Archeologically Sensitive Areas**

The following stipulations describe the processes that will be followed in conducting further research to determine the potential for Archeological Resources to be affected by Red Line in ancillary areas outside of the APE, such as in mitigation activities, staging areas, and alignment modifications. Should such activities be added for which cultural resources studies have not been completed, MTA shall ensure that consultation ensues with the MHT and other relevant consulting parties and that all required cultural resources studies are implemented in accordance with the applicable performance standards in Stipulation III.F and with the following coordination procedures:

### **1. Additional Documentary Study(s) and Further Impact Analyses**

Additional documentary research and impact analyses will be undertaken by MTA and their Cultural Resources Manager, as set forth below:

- a. MTA will submit any plans developed pursuant to potential physical and contextual effects described above to FTA, and, as applicable, to MHT at 30 percent, 60 percent and 90 percent completion stages, in advance of

any construction that may result in any such effects. FTA and MHT will review and comment on such submissions within 60 days or it will be presumed that they have no comments as governed by the process set forth in IV.A that follows.

- b. Further Archeological evaluation for any area within the APE identified as potentially sensitive for human remains will be undertaken by MTA as discussed in **Exhibit H**.
- c. For any areas that may be identified as sensitive for archeological remains, additional investigations, including further research, and field-testing will be undertaken by MTA.
- d. If a review of future geotechnical data on the substrate beneath structures in the LOD reveals the potential for intact, artifact-bearing deposits, coordination/consultation with MHT will take place to agree on an appropriate protocol for Archeological monitoring of construction. The monitoring protocol will stipulate the methodologies to be employed to identify any potentially significant Archeological features (e.g., privies, wells, building foundations), assess their significance, and identify mitigation measures. Mitigation could entail document research into the history of the properties under investigation, the identity of the individuals and families that occupied the sites, their occupations, and the communities of which they were a part. It could also include Archeological sampling of the site or sites through hand excavation, analysis and curation of artifacts and report preparation. The Maryland Archeological Conservation Lab or any other approved repository will curate and store the artifacts.

## **2. Soil Boring Program**

During the Preliminary Engineering phase of Red Line, MTA established a soil-boring program to identify geotechnical and environmental subsurface conditions along the project corridor. Additional soil borings are anticipated as the project moves through the Final Design. A process has been developed to ensure that potential cultural resources impacts are considered prior to any ground disturbance tied to the soil boring program. Future soil boring efforts and their potential involvement with cultural resources are elaborated in **Exhibit I**. The key elements of the Soil Borings Program are as follows:

- Retention of Professional Archeologist
- Review of Borings Logs by the Professional Archeologist
- Potential Additional Soil Borings upon Request by Professional Archeologist
- Soil Boring Procedures in Potential Burial Ground Sites
- Reporting Procedures to MHT and FTA

### **3. Field Testing Plan**

At each site where the potential for Archeological Resources has been identified and Red Line may affect such resources, MTA and their Cultural Resources Manager, in consultation with MHT, will prioritize the sites for testing, and then undertake field testing to identify the presence or absence of potential Archeological Resources (**Exhibit J**):

- a. Prior to commencing any field testing, MTA will submit a Field Testing Plan outlining the proposed methodology for MHT concurrence that the field evaluation and testing program will be conducted at a level sufficient to determine if the potential resource meets the Historic Properties Criteria. MHT review and comment on such submissions will be governed by the process set forth in IV.A that follows.
- b. In the areas identified as potentially sensitive for human remains field testing by MTA will proceed in accordance with the requirements for testing in areas potentially sensitive for human remains, in accordance with the Field Testing Plan (**Exhibit H**).
- c. In areas identified as potentially sensitive for prehistoric or historic archeological resources, based on research undertaken, as outlined in III.C.1.c above, field testing will be conducted by MTA, as determined appropriate, in consultation with MHT.
- d. For each field-tested site, MTA will provide a report to FTA, MHT in which the Historic Properties Criteria have been applied to reach one of the following conclusions:
  - (i) The site does not meet the Historic Properties Criteria, in which case, no further action is required.
  - (ii) The site meets the Historic Properties Criteria, in which case the site will be treated in accordance with III.C.5 below.
- e. MHT review and comment on such plans will be governed by the process set forth in IV.A that follows.
- f. FTA and MTA, along with MHT, will develop and implement a field testing and/or monitoring plan within 24 months of execution of this PA for those ancillary sites that will be affected by construction activities associated with Red Line.
  - (i) FTA and MTA will develop the plan to identify any artifacts, Architectural elements, and remnants, associated with the ancillary sites, and
  - (ii) The plan to address the disposition of any such remains found will include steps set forth in III.C.3.a, III.C.3.d, and III.C.5.a-c.



**4. Protocol for Work in Areas Potentially Sensitive for Human Remains**

A detailed workplan has been developed by MTA for work in areas potentially sensitive for human remains (**Exhibit H**). It is anticipated that any proposed work in areas potentially sensitive for human remains will require compliance with the Native American Graves Repatriation Act (NAGPRA), or if the remains are not of Native American cultural affiliation, sections of the Annotated Code of Maryland regulating the treatment of human remains (Title 10 Subtitle 4, §10-401 through §10-404). MTA will comply with all legal responsibilities required of the agency under the applicable regulations, noted above. Steps in this process include:

**a. Consultation with Descendent Community(s)**

Based on the conclusions of the Documentary Analysis Report, described in III.C.1.b., and where subsurface work is required for field testing, as described in III.C.3.b., MTA will complete a reasonable and good faith effort, prior to any excavation, to locate and contact the appropriate descendent community(s). In the event that MTA can identify and locate the appropriate descendent community(s), MTA will seek their involvement to establish a protocol outlining appropriate notification procedures and treatment of human remains, in the event the discovery of human remains during construction. Such protocol will be in place prior to any excavation.

**b. Notification Procedures and Treatment of Human Remains**

If any human remains are encountered during subsurface work for field testing or construction, in accordance with the Native American Graves Repatriation Act (NAGPRA), or if the remains are not of Native American cultural affiliation, sections of the Annotated Code of Maryland regulating the treatment of human remains (Title 10 Subtitle 4, §10-401 through §10-404), the following steps will occur:

- (i) MTA will stop work and secure the site.
- (ii) MTA will notify the State Medical Examiner, local Police Department and MHT.
- (iii) The appropriate descendent community(s) will be notified, so that the remains may be treated in an appropriate manner, as previously agreed upon by the descendent community(s) and MTA.
- (iv) Once MTA, in conjunction with MHT, indicates that the remains have been properly treated, construction may proceed.

**5. Mitigation, Data Recovery, Curation, and Public Interpretation**

- a. For each site identified as meeting the Historic Properties Criteria, FTA and MTA, in consultation with MHT, will consider measures, such as

design modification, for avoidance of Archeological Resources (**Exhibit F**).

For those sites identified as meeting the Historic Properties Criteria where FTA and MTA determine, in consultation with MHT, that avoidance is not practicable, MTA, in consultation with MHT, will develop and implement a Data Recovery Plan. The Data Recovery Plan will be designed to recover data sufficient to address significant research issues and test assumptions, and, thus, substantially preserve the Archeological value of Section 106-protected sites. The Data Recovery Plan will be consistent with the regulations as stated in Stipulation III.A.3. MHT shall review and comment on such plan and will be governed by the process set forth in IV.A that follows. MTA will be responsible for the implementation of such a plan, as appropriate.

- b. In advance of any mitigation or data recovery efforts undertaken pursuant to III.C.5.a and b above, MTA, in consultation with MHT, will develop, in accordance with 36 CFR Part 79, an Analysis and Curation of Material and Records Plan for any Archeological excavations. MHT review and comment on such plans will be governed by the process set forth in IV.A that follows. MTA will be responsible for the implementation of such a plan, as appropriate.
- c. In advance of data recovery or mitigation efforts, MTA will develop a plan to provide interpretive materials to the public in consultation with MHT (**Exhibit F**). This activity will follow the document review process identified in Section IV. Upon the development of an acceptable public outreach plan, MTA will ensure the plan is implemented.

#### **D. Construction Protection Plan for Archeological Resources**

MTA will develop a Construction Protection Plan (CPP) for Archeological Properties (**Exhibit K**) located within 90 feet of construction in consultation with FTA, MHT, and other appropriate Baltimore City and Baltimore County agencies.

If any additional Archeological Resources of special concern are encountered, a Construction Protection Plan for these resources will also be prepared by MTA.

The CPPs will be developed prior to construction of Red Line and updated as necessary. MTA will ensure that any Archeological Property that could be adversely affected by Red Line construction will be included in a CPP, and MTA will implement such plans, as appropriate. The CPP for Archeological Resources incorporates all activities related to the protection of Archeological Resources included in the PA.

#### **E. Unanticipated Discoveries Plan**

- 1. MTA, in conjunction with FTA, along with MHT, will develop and implement an Unanticipated Discoveries Plan for non-human Archeological Resources and human remains, in the event that any unanticipated Archeological Resources and/or human remains are encountered during construction of Red Line (**Exhibit L**).

2. MHT review and comment on such plan will be governed by the process set forth in IV.A that follows.
3. FTA and MTA, along with MHT, acknowledge that extraordinary costs will be incurred if construction were to be halted or delayed once underway. Accordingly, the parties will implement the approved Unanticipated Discoveries Plan expeditiously in circumstances requiring its use.

**F. Professional Standards**

MTA will ensure that archeological research, testing, analysis, and plans conducted pursuant to this PA will be carried out by or under the direct supervision of a person or persons meeting, at a minimum, the Secretary of Interior's Professional Qualifications Standards. MTA will ensure that final archeological reports are consistent with the following: MHT's *Standards and Guidelines for Archeological Investigations in Maryland* (Shaffer and Cole 1994); and *Standards for Cultural Resource Investigations and the Curation of Archeological Collections in Maryland* (1994).

**IV. DOCUMENT REVIEW**

A. MHT will provide comments on documents, as set forth below:

1. MHT will provide comments to MTA regarding any plan submitted pursuant to this agreement, as promptly as possible, but not to exceed 30 calendar days of the receipt of such revisions.
2. If MHT does not submit comments in writing within 30 calendar days of the receipt of any such submissions, it is understood that MHT have concurred with the proposed plans.
3. If MHT objects within 30 calendar days of the receipt of any submissions, then FTA, MTA, MHT will consult expeditiously in an effort to resolve the objection.
4. If FTA and MTA cannot resolve MHT objection, and if further consultation with MHT is deemed unproductive by any party, then the parties will adhere to the dispute resolution procedures detailed under VII. below.

FTA, MTA, MHT acknowledge that the timeframes set forth in IV.A., above, will be the maximum allowable under normal circumstances. In exigent circumstances (such as when construction activities have been suspended or delayed pending resolution of the matter), each party agrees to expedite their respective document review and dispute resolution obligations.

**V. DURATION**

This PA will be voided if Final Design and/or construction has not commenced within five (5) years from the date of execution. Prior to such time, MTA may consult with the other signatories to reconsider the terms of the PA and amend it in accordance with Stipulation IX below.

## **VI. REPORTING AND OVERSIGHT**

- A. Final Reports.** MTA will provide to MHT and FTA final historic reports and final Archeological Resources reports resulting from this PA.
- B. Reports.** Commencing from the date that this Agreement is fully executed, and continuing until Red Line is completed or terminated by MTA, MTA will hold quarterly meetings and submit quarterly reports to ACHP, MHT, FTA, and all consulting parties for the first three years; after that time, semi-annual meetings and reports will be provided. These meetings and reports will provide information concerning implementation of this agreement. These reports will be provided via e-mail, the project web site or other agreed-upon methods of distribution.
- C. Annual Review of the Programmatic Agreement.** MTA, MHT will review the effectiveness of this PA to determine whether to revise the PA during each annual reporting period. MTA will recommend any PA revisions to FTA, ACHP, MHT amend it in accordance with Stipulation IX below.
- D. Revisions to the Programmatic Agreement.** After review of the annual reports, if FTA, ACHP, MTA, MHT agree that revisions to this PA are necessary, such revisions will be considered and implemented, pursuant to Stipulation IX (“Amendment”) below.

## **VII. DISPUTE RESOLUTION**

- A.** In the event any signatory objects to any plan or report proposed pursuant to this PA within 30 calendar days of its receipt of such plan or report, or objects at any time to the manner in which the terms of this PA are implemented, FTA and MTA will consult with the MHTMHT to resolve the objection.
- B.** Following such further consultation, FTA will determine, as promptly as possible, whether such objection has been satisfactorily resolved. If FTA determines that the objection has not been satisfactorily resolved, within 15 calendar days of their determination in this regard, FTA will forward documentation relevant to the dispute, including FTA’s proposed resolution of the dispute, to ACHP.
- C.** Except in exigent circumstances, as provided in VII.E., when a dispute occurs, ACHP will provide FTA with recommendations or formal ACHP comments (per 36 CFR §800.7) within 30 calendar days after receipt of pertinent documentation. Prior to reaching a final decision on the dispute, FTA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories, and provide them with a copy of this written response. FTA will then proceed according to its final decision. .
- D.** Except in exigent circumstances, as provided in VII.E., in the event ACHP fails to respond to FTA’s request for recommendations or comments within 30 calendar days of receiving pertinent documents, FTA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, FTA shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories to the PA, and provide them and the ACHP with a copy of such written response.

- E.** In the case of disputes arising under exigent circumstances (such as when construction activities have been suspended or delayed pending resolution of the matter), relevant parties will endeavor to resolve any dispute within seven calendar days. In particular, ACHP agrees to respond to FTA's request for recommendations or comments within five business days of its receipt thereof.
- F.** If MTA receives timely and substantive written public objections regarding the treatment of historic properties or measures taken to implement the terms of this PA, MTA will consult with the objector regarding such objections.

  - 1.** MTA shall respond to the objector within 30 calendar days. If MTA and the objector cannot resolve the matter, or the matter is such that MTA believes involvement of MHT is appropriate, MTA shall notify MHT, and provide copies of the objection, and MHT, as appropriate, shall advise MTA of measures, if any, that could resolve the matter.
  - 2.** If MTA and MHT cannot resolve the matter and MHT determine that, in the absence of such resolution, there would be an adverse effect on the historic property, MHT shall consult with FTA and ACHP, as appropriate.

#### **VIII. OTHER**

- A.** MHT may monitor activities carried out pursuant to this PA, and will review such activities as requested. MTA will cooperate with FTA, MHT in carrying out MHT monitoring and reviewing responsibilities.
- B.** Notwithstanding any other provision in this PA, any party may propose an amendment hereto, whereupon the parties will consult to consider such amendments.
- C.** For purposes of notices and consulting pursuant to this PA, the following addresses and contact information should be used for the following agencies:

**MTA**

John Newton  
Maryland Transit Administration  
6 St. Paul Street  
Baltimore, MD 21202-1614

**FTA**

Mr. Daniel Koenig, Environmental Protection Specialist  
Federal Transit Administration, DC Metro  
1900 K Street NW, Suite 510  
Washington, DC 20006

**MHT**

J. Rodney Little  
State Historic Preservation Officer  
Maryland Historical Trust  
100 Community Place  
Crownsville, MD 21032-2023

**ACHP**

Advisory Council on Historic Preservation  
Old Post Office Building  
1100 Pennsylvania Avenue NW, Suite 803  
Washington, DC 20004

- D.** In the event that during construction of the Red Line Project, an emergency situation should occur (such as a natural disaster), which represents an immediate threat to public health, safety, life or property creating a hazardous condition in relation to an Historic Property, MTA shall notify the FTA, Advisory Council, MHT of the condition which has initiated the situation and the measures to be taken to respond to the emergency or hazardous condition. The FTA and SHPO may submit additional measures to resolve Adverse Effects within seven days of the notification. Should the nature of the emergency warrant immediate attention, MTA shall consult with the FTA and MHT via telephone/e-mail/facsimile/etc. Should the MHT or the FTA desire to provide technical assistance to MTA in responding to such condition, they shall submit comments within five days from notification, if the nature of the emergency or hazardous condition allows for such coordination.

**IX. AMENDMENTS**

This PA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all of the signatories is filed with the ACHP.

**X. TERMINATION**

If any signatory of this PA determines that its terms will not or cannot be carried out, that party will immediately consult with the other parties to attempt to develop an amendment per Stipulation IX above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the PA upon written notification to the other signatories. Once the PA is terminated, and prior to work continuing on the undertaking, MTA and FTA must either (a) execute a PA pursuant to 36CFR Section 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR Section 800.7. MTA and FTA will notify the signatories as to the course of action it will pursue.

This agreement will terminate five years after completion of construction (closeout of Red Line), and the obligation set forth in this document governing construction, reporting, and curation, for five years after FTA notifies the other parties in writing that this Programmatic Agreement has been terminated.

**APPROVAL AND SIGNATURE PAGE FOR PROGRAMMATIC AGREEMENT**

**Among**

**The Federal Transit Administration (FTA)  
The Advisory Council On Historic Preservation (ACHP)  
The Maryland Transit Administration (MTA)  
and  
The Maryland State Historic Preservation Officer (MHT)  
Regarding The**

**Red Line Transit Corridor (Red Line) in  
Baltimore City and Baltimore County, Maryland**

**Execution and Implementation of this Programmatic Agreement Evidences that FTA has Satisfied  
its Section 106 Responsibilities for Individual Undertakings of Red Line.**

**FEDERAL TRANSIT ADMINISTRATION**

**By:** \_\_\_\_\_ **Date** \_\_\_\_\_  
**Name** Brigid Hynes-Cherin  
**Title** Regional Administrator, Region III

**MARYLAND TRANSIT ADMINISTRATION**

**By:** \_\_\_\_\_ **Date** \_\_\_\_\_  
**Name** Henry Kay  
**Title** Executive Director

**MARYLAND STATE HISTORIC PRESERVATION OFFICER**

**By:** \_\_\_\_\_ **Date** \_\_\_\_\_  
**Name** J. Rodney Little  
**Title** State Historic Preservation Officer

**ADVISORY COUNCIL ON HISTORIC PRESERVATION**

**By:** \_\_\_\_\_ **Date** \_\_\_\_\_  
**Name** John M. Fowler  
**Title** Executive Director

## **List of Exhibits**

- A PROJECT LOCATION MAP**
- B HISTORIC PROPERTIES WITHIN THE RED LINE AREA OF POTENTIAL EFFECTS (APE) – BALTIMORE CITY AND BALTIMORE COUNTY, MARYLAND**
- C LISTING OF AREAS OF POTENTIAL ARCHEOLOGICAL SENSITIVITY WITHIN THE RED LINE PROJECT APE AND POTENTIAL PROJECT EFFECTS**
- D AREAS OF POTENTIAL ARCHEOLOGICAL SENSITIVITY WITHIN THE RED LINE PROJECT APE AND POTENTIAL PROJECT EFFECTS – BALTIMORE CITY AND BALTIMORE COUNTY, MARYLAND**
- E CONSTRUCTION PROTECTION PLAN FOR HISTORIC PROPERTIES**
- F MITIGATION, DATA RECOVERY, CURATION AND PUBLIC INTERPRETATION**
- G CONSTRUCTION AND ARCHEOLOGICAL PHASING PLAN**
- H PROTOCOL FOR WORK IN AREAS WITH THE POTENTIAL FOR HUMAN REMAINS**
- I SOIL BORINGS PROGRAM AND ARCHEOLOGICAL RESOURCES PROTOCOL**
- J FIELD TESTING PLAN FOR RED LINE ARCHEOLOGICALLY SENSITIVE AREAS**
- K CONSTRUCTION PROTECTION PLAN FOR ARCHAEOLOGICAL RESOURCES**
- L UNANTICIPATED DISCOVERIES FOR ARCHAEOLOGICAL PROPERTIES INCLUDING HUMAN REMAINS**



Exhibit A: Project Location Map

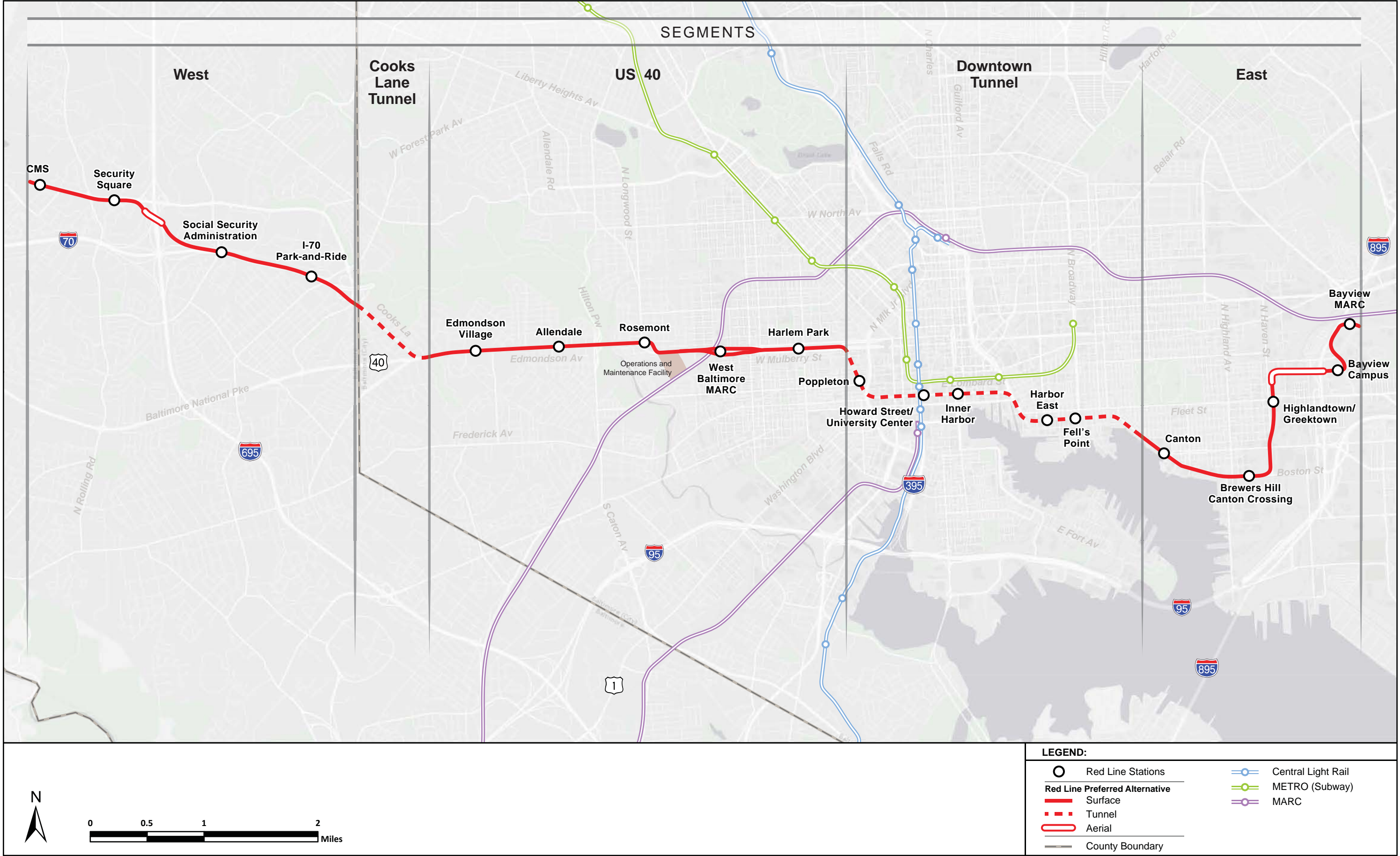




EXHIBIT B: AREA OF POTENTIAL EFFECTS

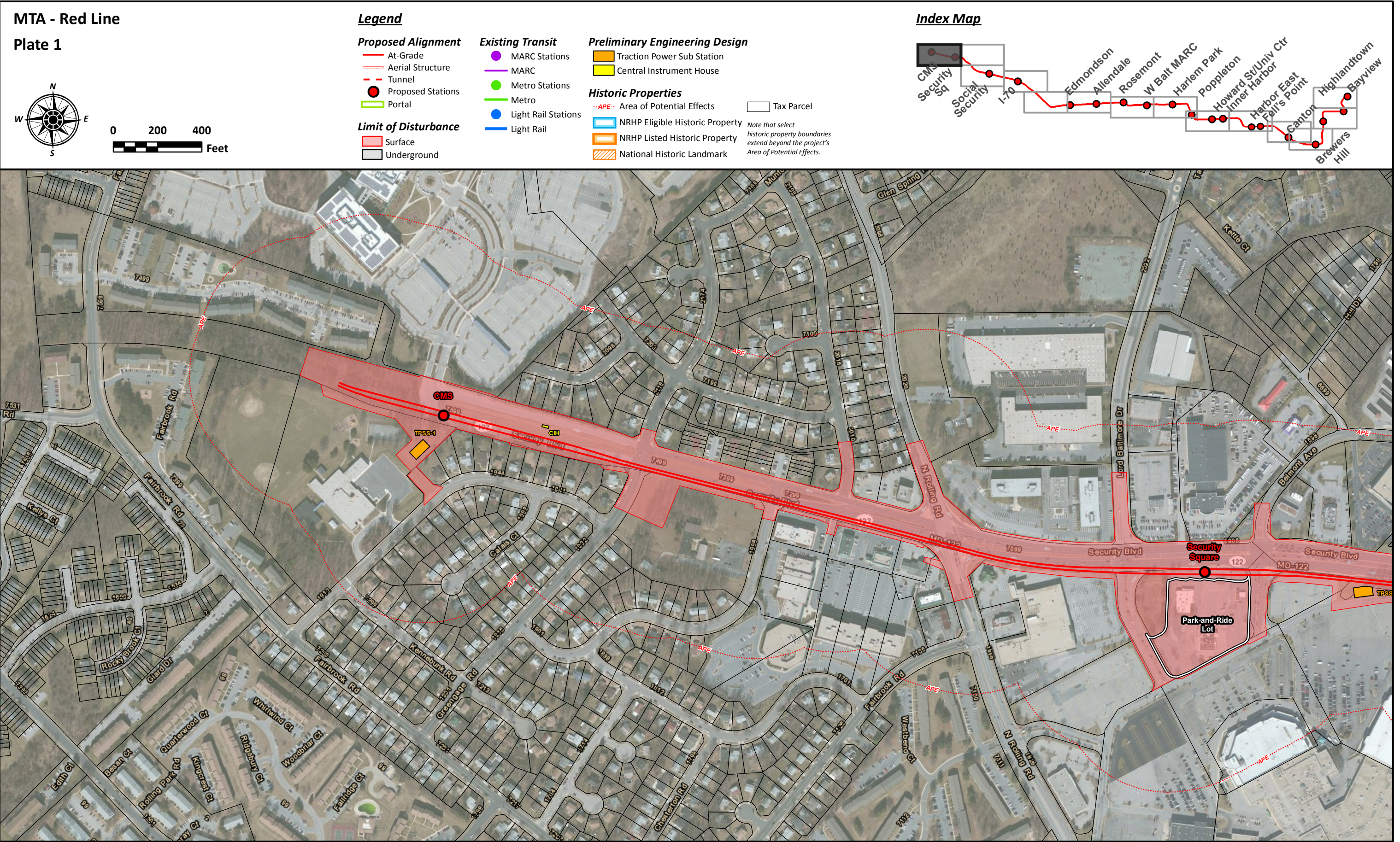
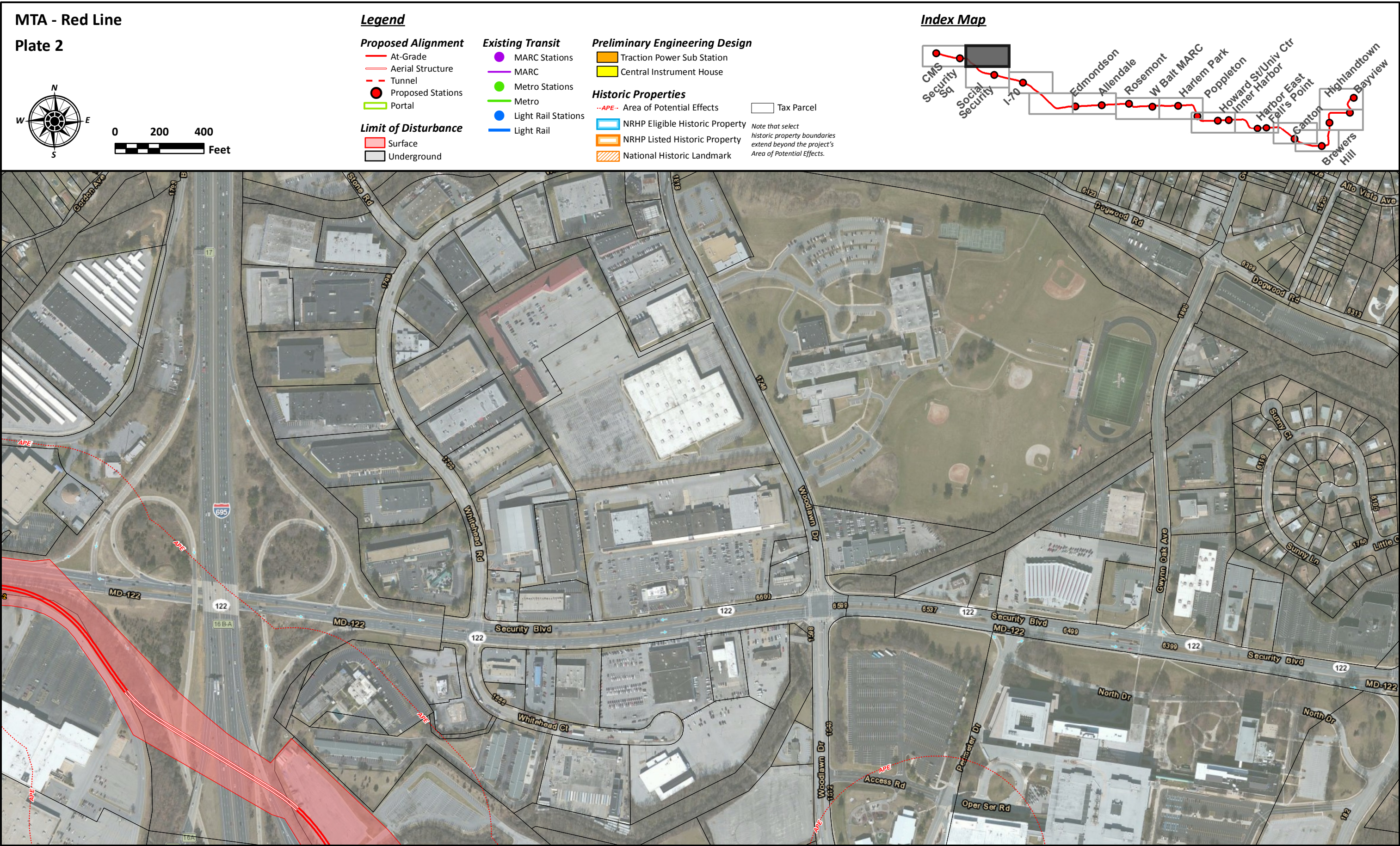




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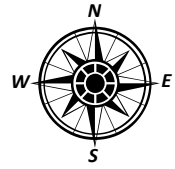




## EXHIBIT B: AREA OF POTENTIAL EFFECTS

## MTA - Red Line





## Plate 3




0 200 400  
Feet

**Legend**







### Proposed Alignment

-  At-Grade
-  Aerial Structure
-  Tunnel
-  Proposed Stations
-  Portal



### Limit of Disturbance

-  Surface  
 Underground





### Existing Transit

-  MARC Stations
-  MARC
-  Metro Stations
-  Metro
-  Light Rail Stations
-  Light Rail

## Preliminary Engineering Design

-  Traction Power Sub Station  
 Central Instrument House

### ***Historic Properties***

-  Area of Potential Effects  
 NRHP Eligible Historic Property  
 NRHP Listed Historic Property  
 National Historic Landmark

**Y** *Note that select historic property boundaries extend beyond the project's Area of Potential Effects.*

## *Index Map*

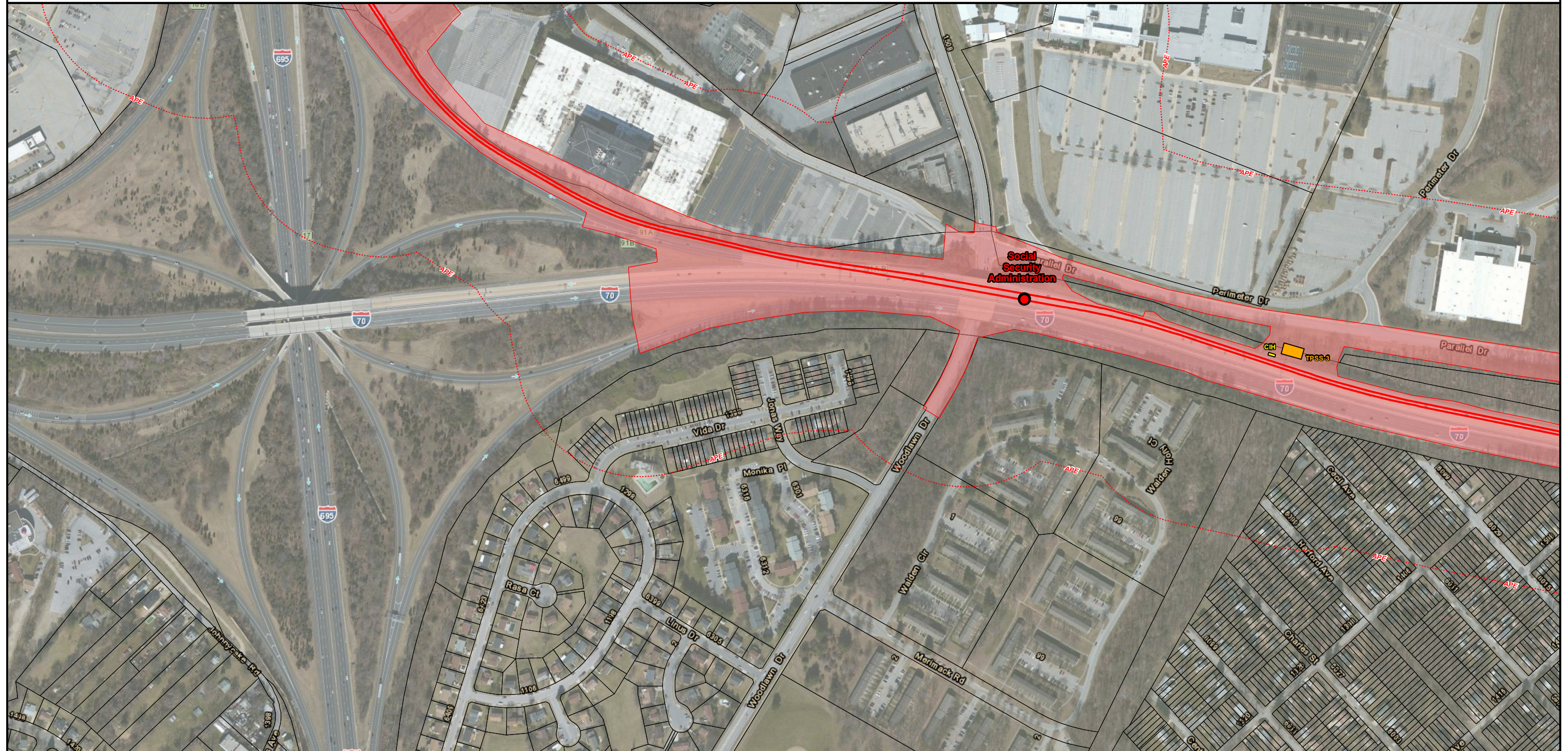
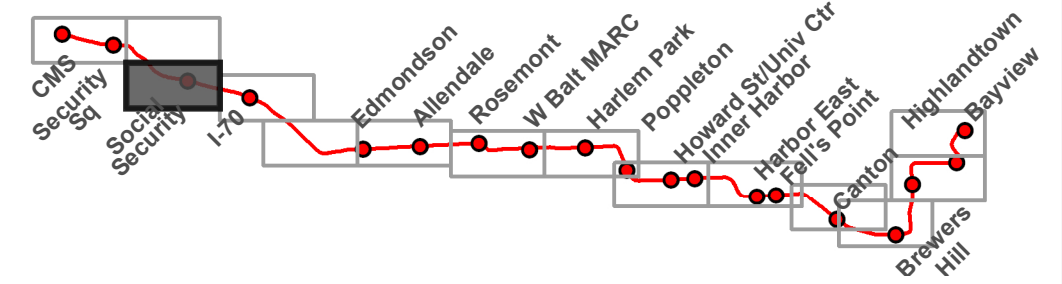
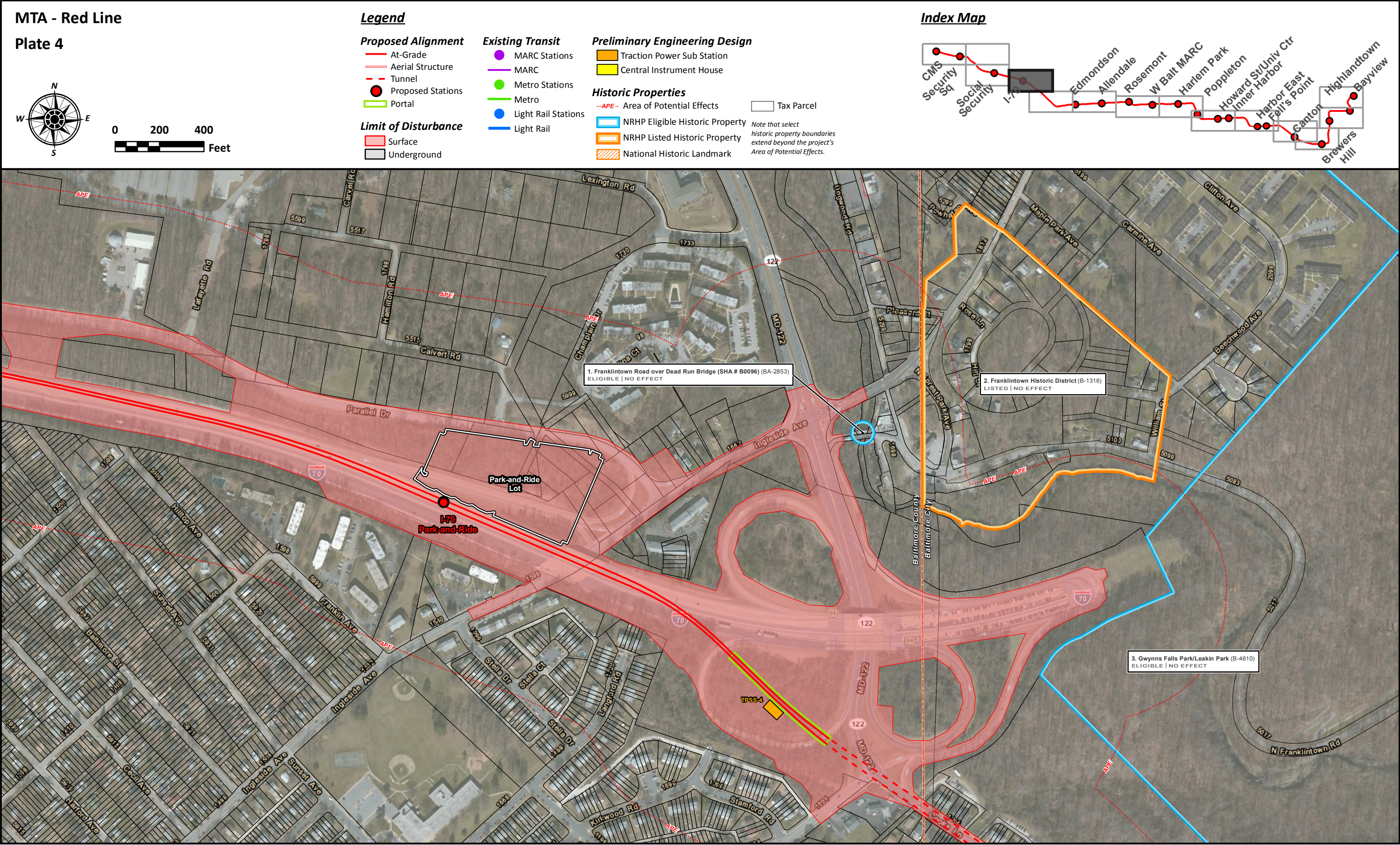




EXHIBIT B: AREA OF POTENTIAL EFFECTS

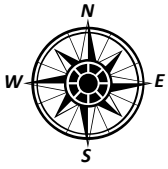




## EXHIBIT B: AREA OF POTENTIAL EFFECTS

## MTA - Red Line





## Plate 5





0 200 400  
Feet

### **Legenda**






### ***Proposed Alignment***

-  At-Grade
-  Aerial Structure
-  Tunnel
-  Proposed Stations
-  Portal


### Limit of Disturbance

-  Surface
-  Underground






### Existing Transit

-  MARC Stations
-  MARC
-  Metro Stations
-  Metro
-  Light Rail Stations
-  Light Rail

## Preliminary Engineering Design

-  Traction Power Sub Station  
 Central Instrument House

### Historic Properties

-  **Area of Potential Effects**
 **Tax Parcel**
-  **NRHP Eligible Historic Property**
-  **NRHP Listed Historic Property**
-  **National Historic Landmark**
- Note that select historic property boundaries extend beyond the project's Area of Potential Effects.*

## **Index Map**

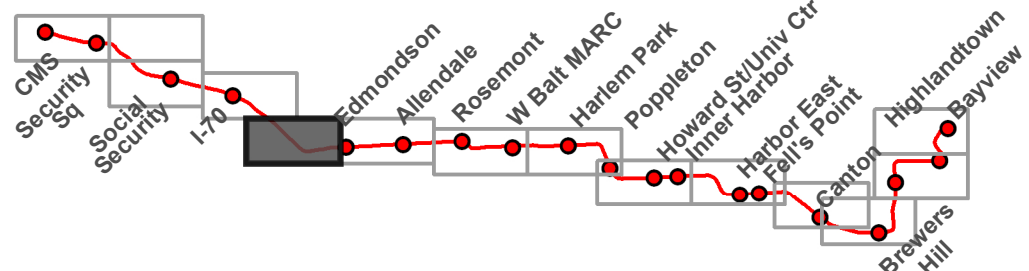




EXHIBIT B: AREA OF POTENTIAL EFFECTS

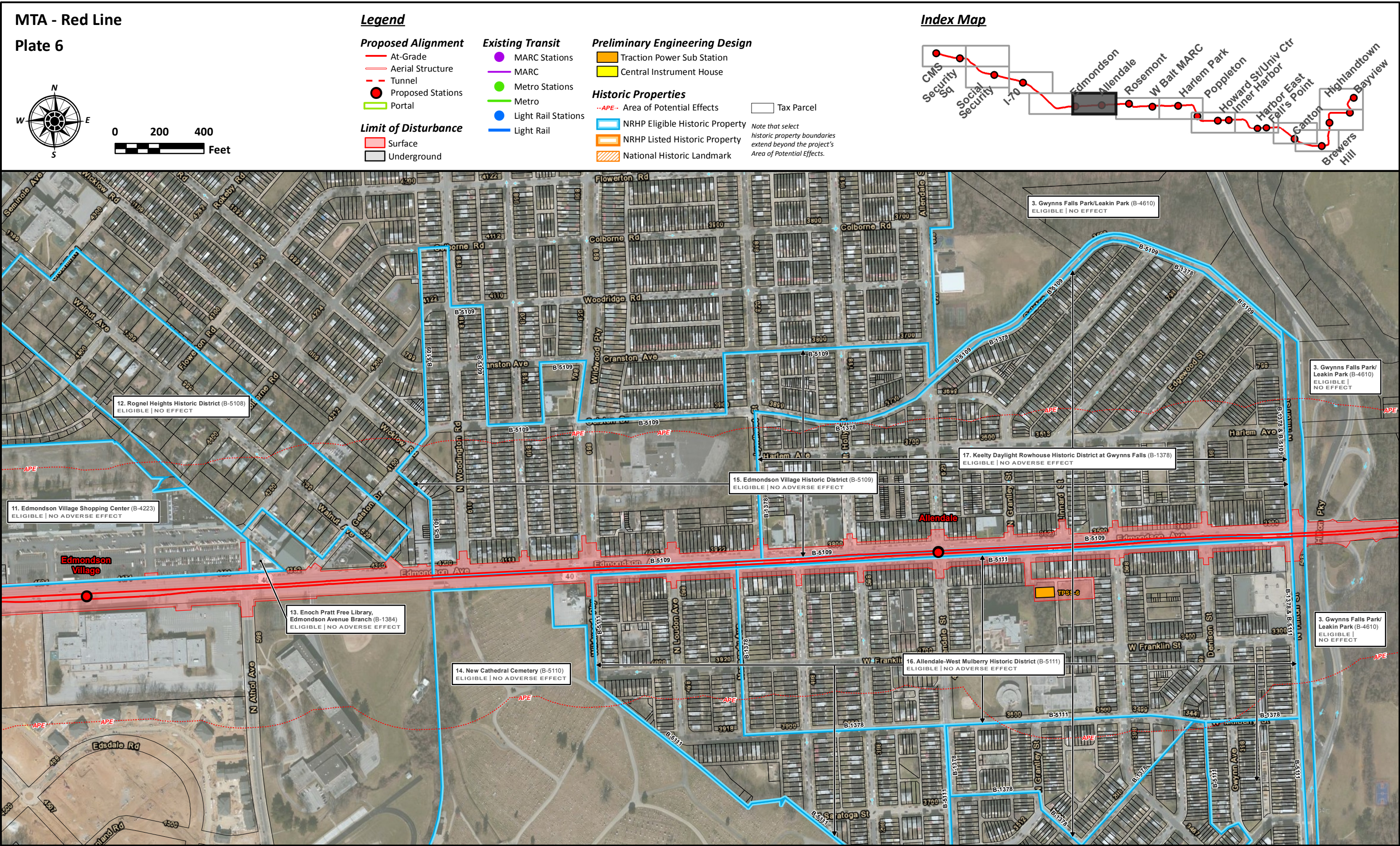




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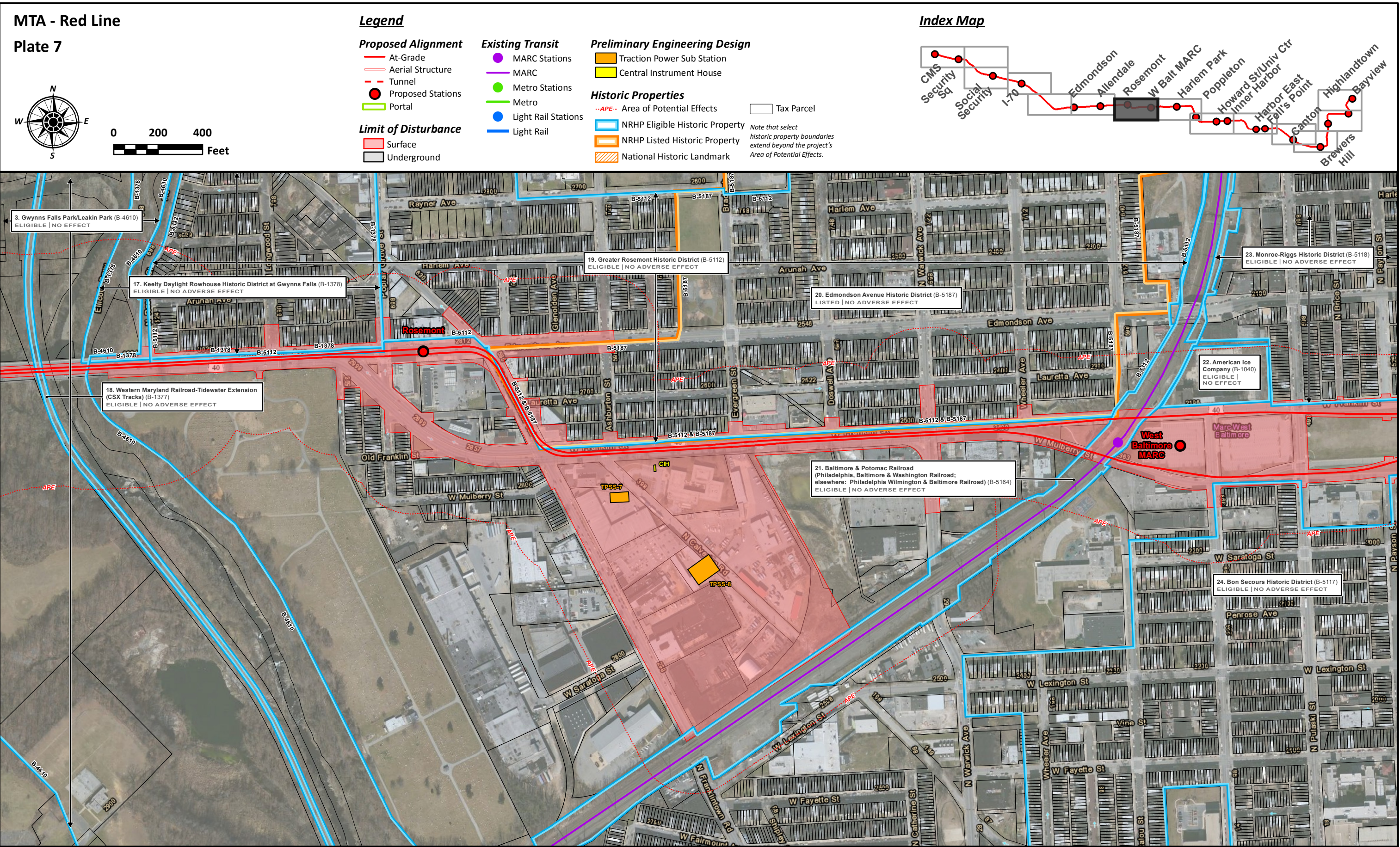




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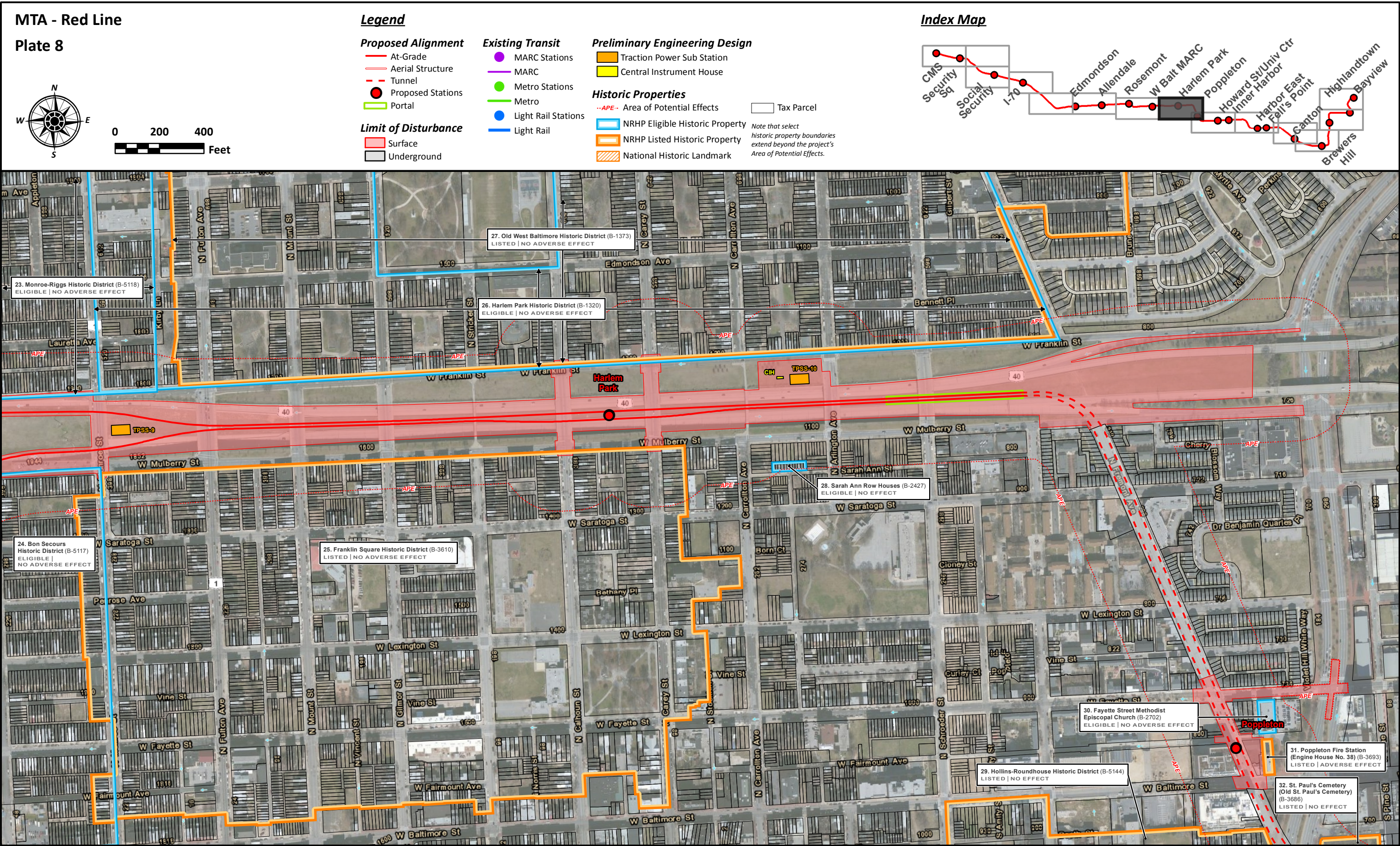




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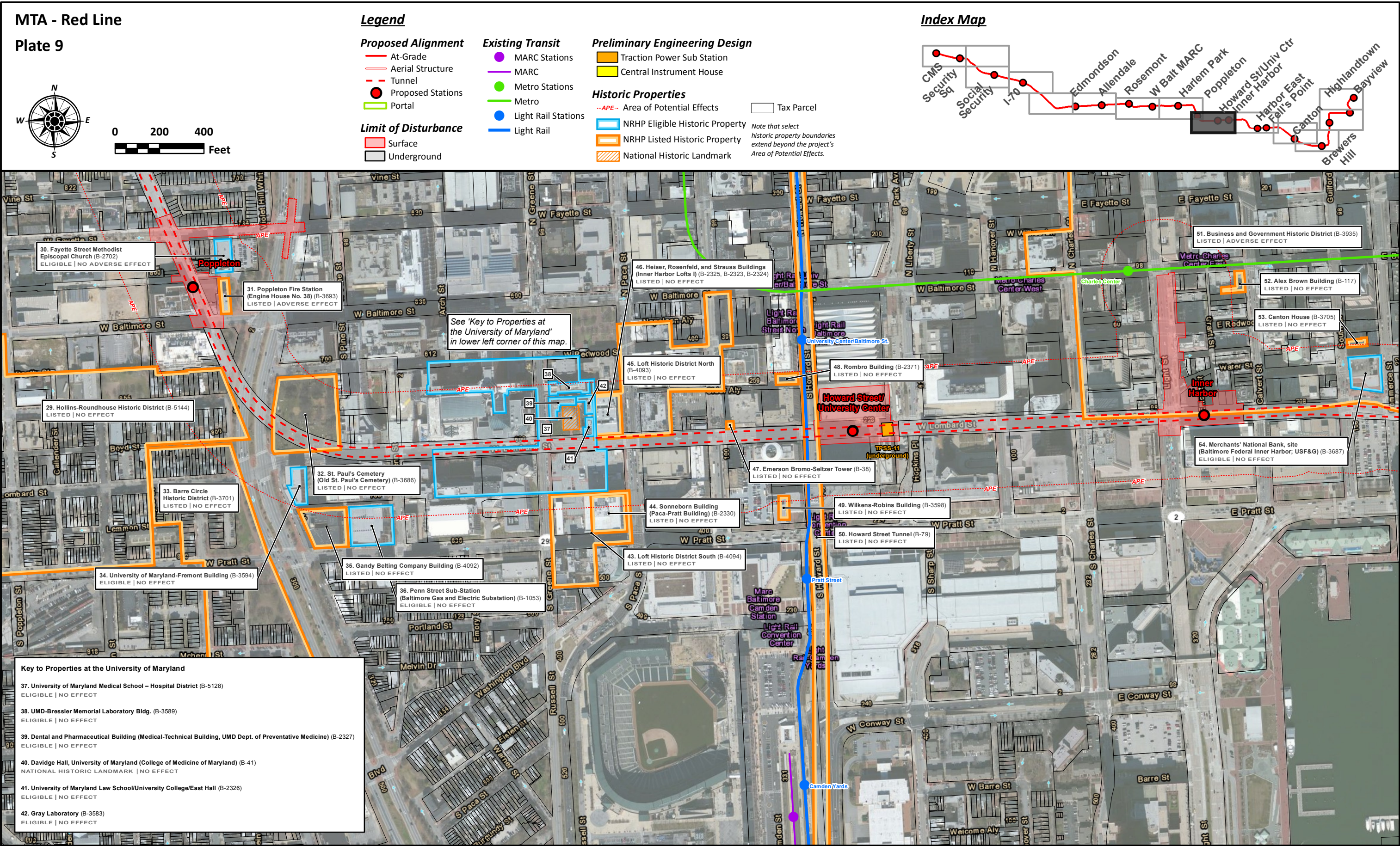




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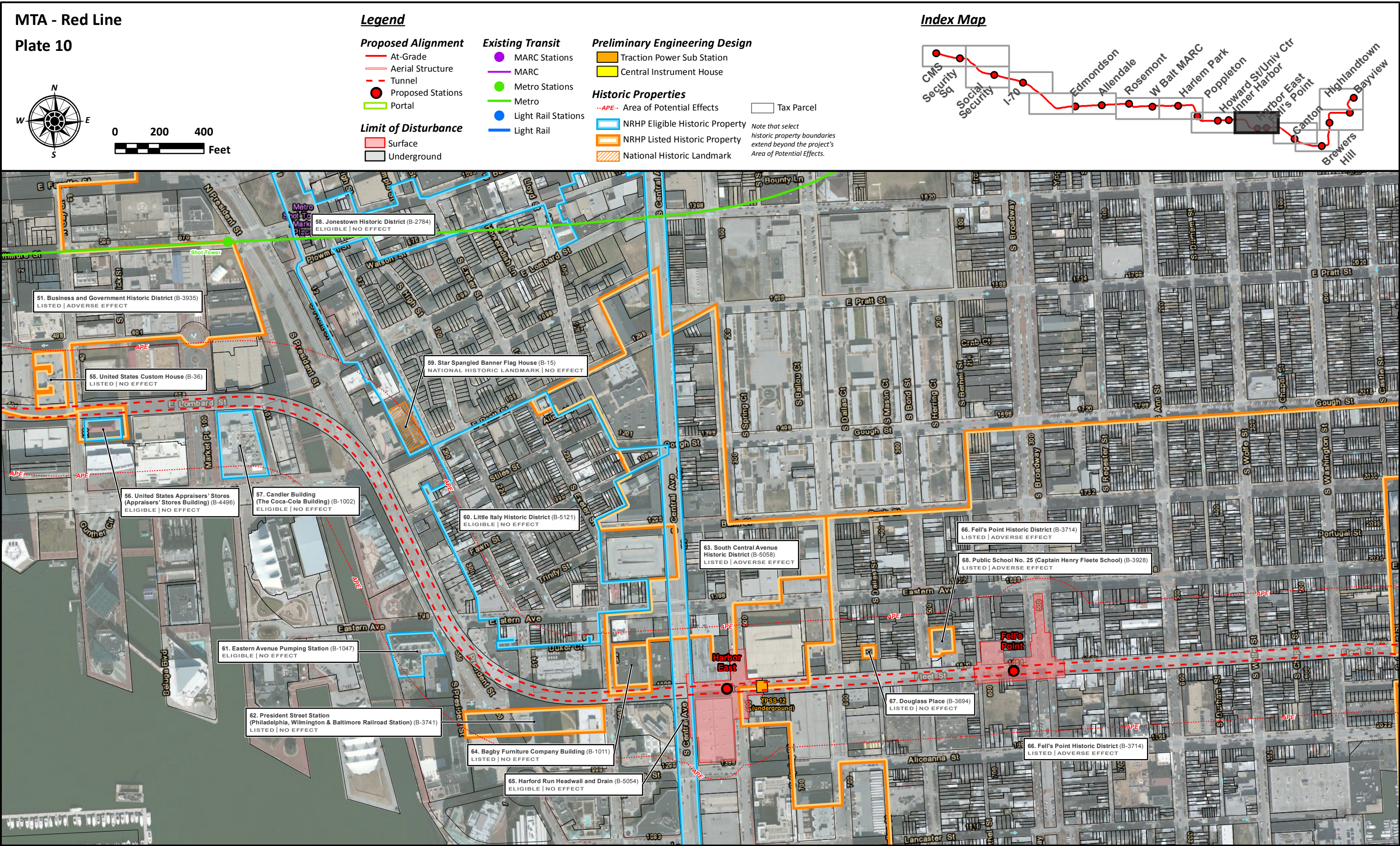




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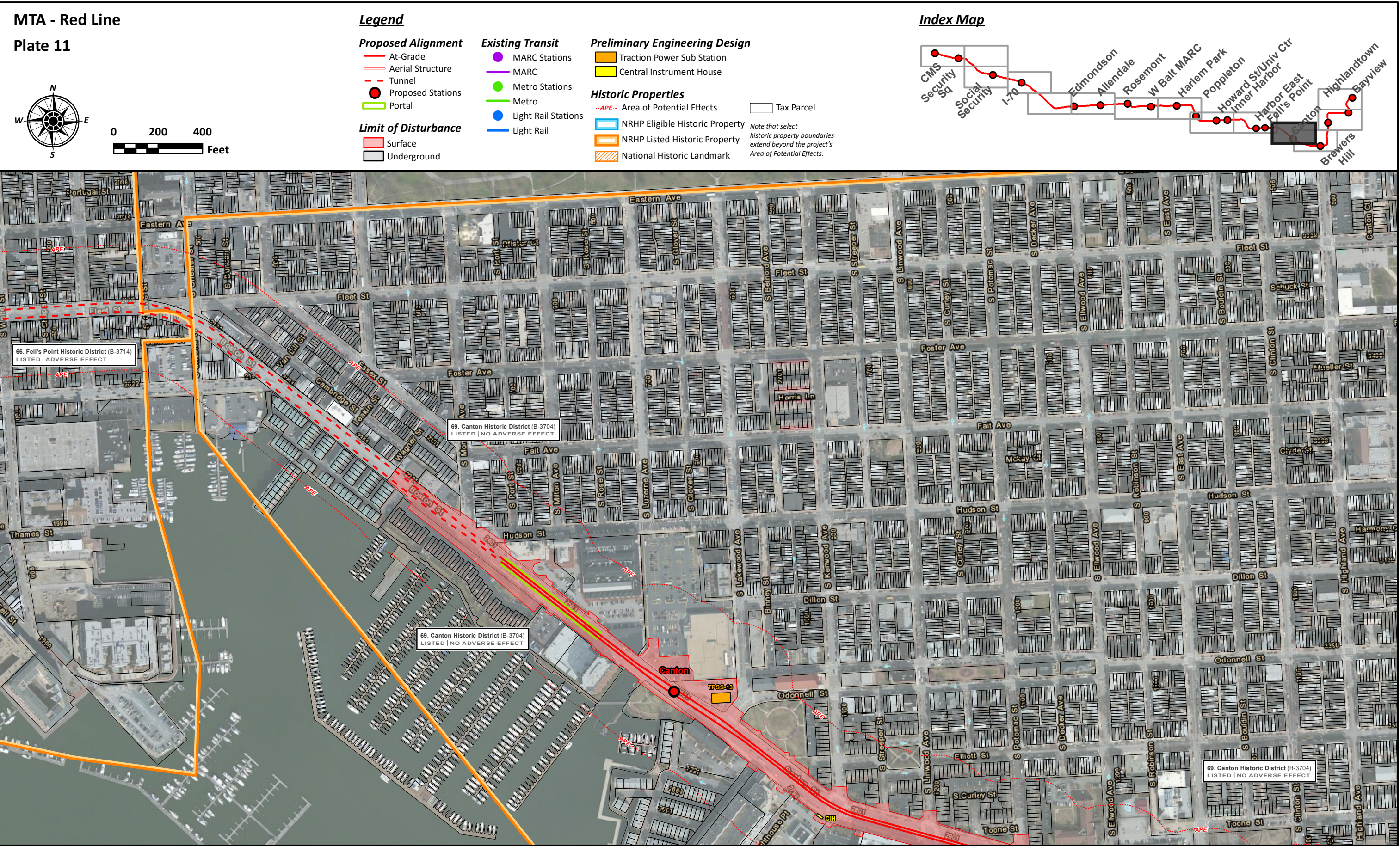




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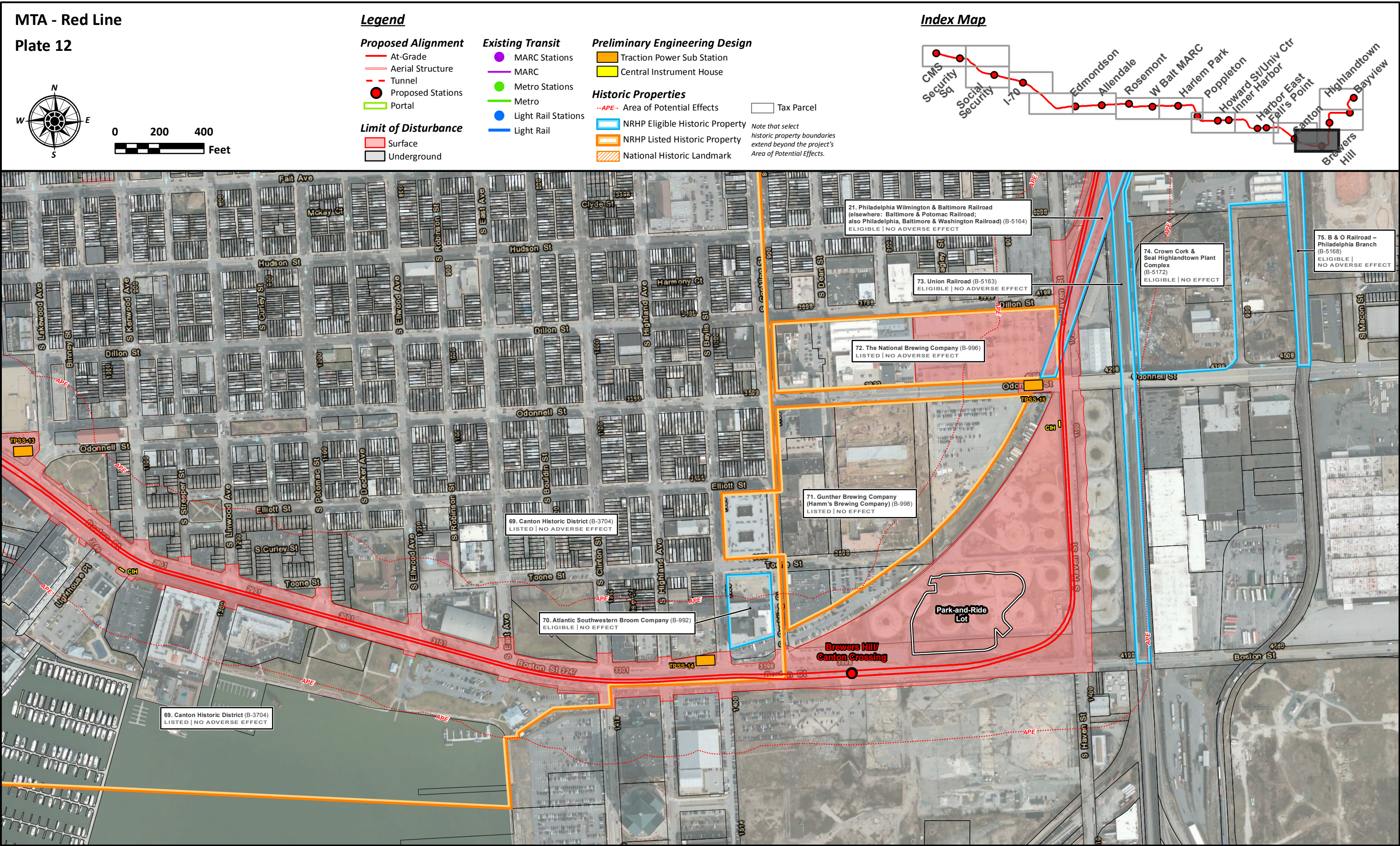




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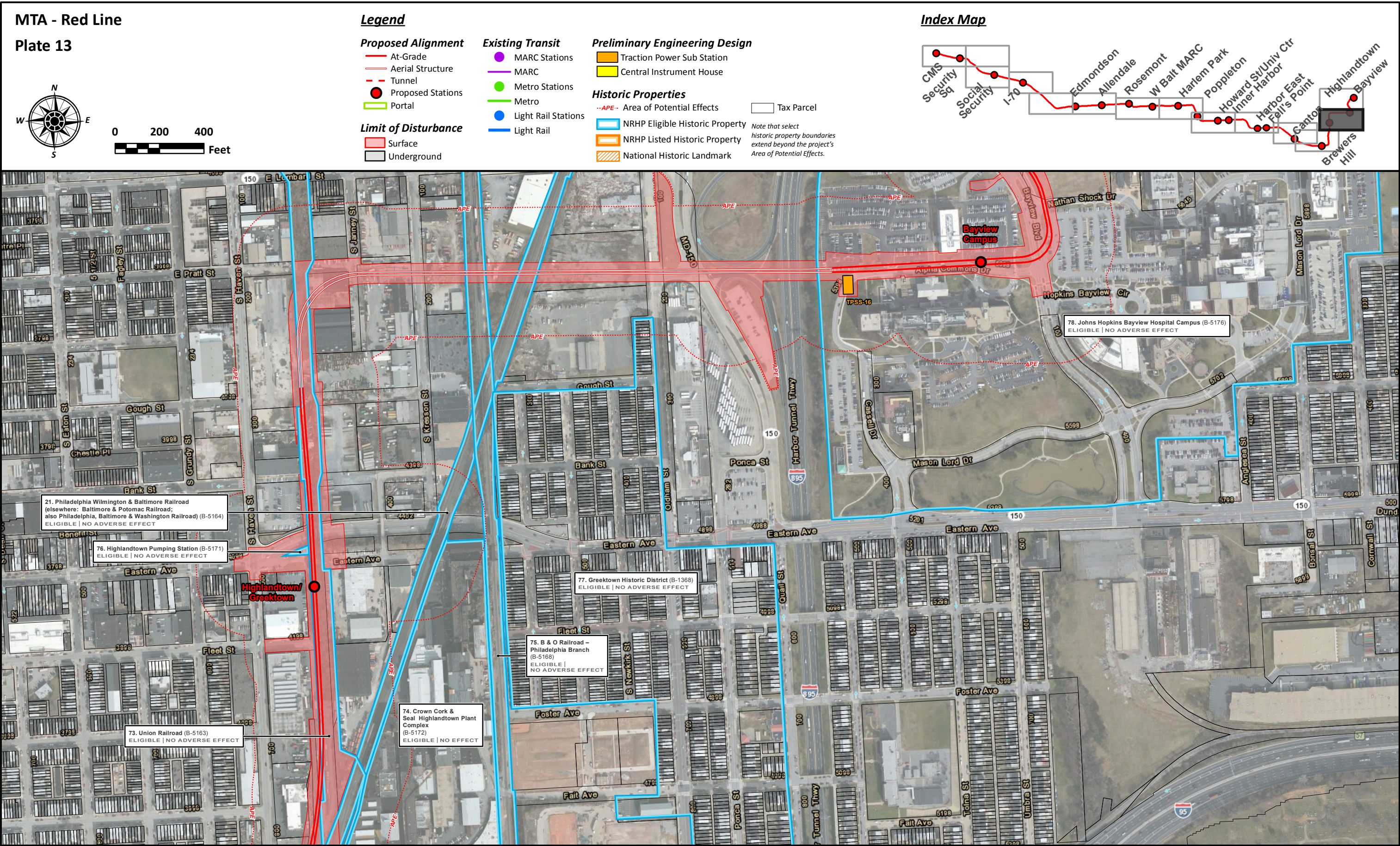
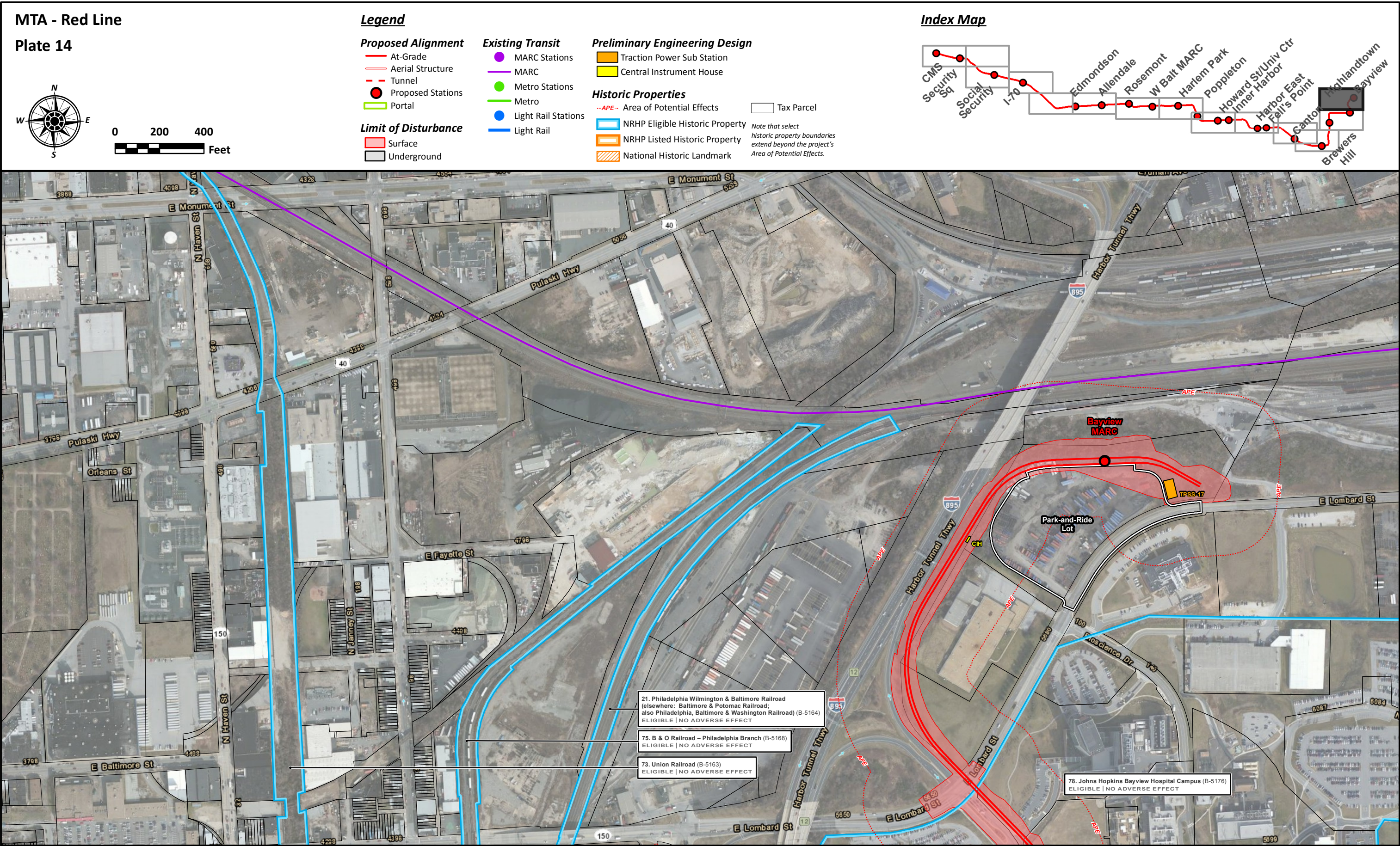




EXHIBIT B: AREA OF POTENTIAL EFFECTS





**EXHIBIT C: LISTING OF AREAS OF POTENTIAL ARCHEOLOGICAL SENSITIVITY WITHIN THE RED LINE PROJECT APE AND POTENTIAL PROJECT EFFECTS**

Study Area	Location	Area of Sensitivity	Property Owner	Archeological Potential	Variables Affecting Potential	Proposed Impact
1	Western Terminus to West Cooks Lane Portal	BA-1	Chadwick Elementary School	High Prehistoric	Located on ridge overlooking headwaters of Dead Run	At-grade/ballasted track; potential for archeological resources within 10 ft of surface
			Baltimore County DPW			
			Episcopal Church			
		BA-2	SHA	High Prehistoric and Historic	Located on ridge overlooking headwaters of Dead Run; Possible mill pond, race track and residence recorded in area	At-grade/ballasted track; potential for archeological resources within 10 ft of surface
			Security Square Mall			
		BA-3	SHA	High Prehistoric and Historic	Located on ridge overlooking headwaters of Dead Run; Possible mill pond, race track and residence recorded in area	At-grade/ballasted track; potential for archeological resources within 10 ft of surface
			Security West			
		BA-4	SHA	High Prehistoric and Historic	Proximity to Dead Run; Franklinton HD nearby	Park and ride lot; potential for archeological resources within 10 ft of surface
			SSA facility			
2	West Cooks Lane Portal to East Cooks Lane Portal	BA-5	I-70/Security Blvd Interchange	High Prehistoric and Historic	Proximity to Dead Run; Franklinton HD nearby	Tunnel portal; potential for archeological resources within 10 ft of surface
3	East Cooks Lane Portal to	BC-1	City-owned vacant lots;	Moderate to High Historic	Late 19 <sup>th</sup> to early 20 <sup>th</sup> century	Stormwater management facility;



	West Downtown Portal				development	potential for archeological resources within 20 ft of surface
		BC-2	City-owned lots; Privately-owned lots; vacant			Stormwater management facility, traction power substation; potential for archeological resources within 20 ft of surface
		BC-3	US 40 ROW	Moderate to High Prehistoric and Historic	Located on ridge between Gwynns Falls and Gwynns Run; Late 19 <sup>th</sup> to early 20 <sup>th</sup> century development	Possible stormwater management facility; potential for archeological resources within 20 ft of surface
			2750 W. Franklin Street			
			509 N. Franklinton Rd			Calverton yards and shops; potential for archeological resources within 20 ft of surface
		BC-4	State of MD Dept of Corrections; 301 N. Calverton Rd			
			City-owned lots			
			239 N. Franklinton Rd			
			AMTRAK			
		BC-5	MARC parking lot	Moderate Prehistoric; Moderate to High Historic	Proximity to Gwynns Run; Late 19 <sup>th</sup> to early 20 <sup>th</sup> century development	Improvements to West Baltimore MARC Station; potential for archeological resources within 20 ft of surface
		BC-6	Grassy area along I- 170	Moderate to High Prehistoric and Historic	Proximity of unnamed stream; Union Orphans Asylum was located in area	Traction power substation; potential for archeological resources within 20 ft of surface

4	Downtown Tunnel	BC-7	Privately-owned parcels; City-owned ROW in Fremont Avenue, West Fayette Street, and Martin Luther King Jr. Boulevard	Low Prehistoric; High Historic	Late 19 <sup>th</sup> to early 20 <sup>th</sup> century development	Cut and cover station construction; potential for archeological resources within 20 ft of surface
		BC-8	St. Paul's cemetery		Early 19 <sup>th</sup> to 20 <sup>th</sup> century burials	Tunnel; potential for indirect effects to archeological resources
		BC-9	Privately-owned parcels; City-owned ROW in East Lombard Street		Late 18 <sup>th</sup> to early 20 <sup>th</sup> century development	Cut and cover station construction; potential for archeological resources within 30 ft of surface
		BC-10	Privately-owned parcels; City-owned ROW in East Lombard Street, Baltimore Street and Light Street		Late 18 <sup>th</sup> to early 20 <sup>th</sup> century development	Cut and cover station construction; potential for archeological resources within 30 ft of surface
		BC-11	Privately-owned parcels; City-owned ROW in Fleet Street, South Central Avenue and South Eden Street		Mid 18 <sup>th</sup> to early 20 <sup>th</sup> century development	Cut and cover station construction; potential for archeological resources within 30 ft of surface
		BC-12	Privately-owned parcels; City-owned ROW in Fleet Street, South Broadway and South Bethel Street		Mid 18 <sup>th</sup> to early 20 <sup>th</sup> century development	Cut and cover station construction; potential for archeological resources within 30 ft of surface
		BC-13	Privately-owned	Low to	Mid 19 <sup>th</sup> to early	Tunnel portal;

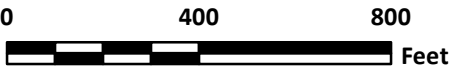
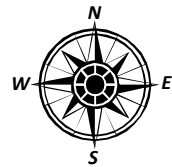
			parcels; City-owned ROW in Boston Street	Moderate Prehistoric; High Historic	20 <sup>th</sup> century development	potential for archeological resources within 30 ft of surface
5	East Downtown Portal (Boston Street) to Bayview Campus	BC-14	Safeway property	Low Prehistoric; High Historic	Made land over marsh; Alleged location of Sterrett Shipyard	At-grade/ballasted track; potential for archeological resources within 20 ft of surface
			City-owned lot south side of Boston Street			
			City-owned lot north side of Boston Street			
		BC-15	Privately-owned parcels; City-owned ROW in Boston Street and South Haven Street	Low to Moderate Prehistoric; High Historic	Open or wooded ground prior to development; Late 19 <sup>th</sup> century residences	
		BC-16	City-owned lots on Eastern Avenue	Low Prehistoric; High Historic	Late 19 <sup>th</sup> century development	Aerial track; potential for archeological resources within 20 ft of surface
		BC-17	Privately-owned parcels			
			MdTA – I-895 ROW			
6	Bayview Campus	BC-18	JHU Bayview Campus	Moderate Prehistoric; High Historic	Upland setting overlooking small drainages; 1866 Almshouse location, pauper cemetery	At-grade/ballasted track; park and ride lots; potential for archeological resources within 20 ft of surface
			MdTA – I-895 ROW			
			5500 E. Lombard St.			
			PICO Trucking property			
			Norfolk Southern property			
			FSK Land Corporation			



EXHIBIT D: AREAS OF POTENTIAL ARCHEOLOGICAL SENSITIVITY WITHIN THE RED LINE PROJECT APE  
AND POTENTIAL PROJECT EFFECTS - BALTIMORE CITY AND BALTIMORE COUNTY, MARYLAND

MTA - Red Line

Plate 1



Legend

Proposed Alignment

- At-Grade
- Aerial Structure
- Tunnel
- Proposed Stations

Limit of Disturbance

- Surface
- Underground

Existing Transit

- MARC Stations
- MARC
- Metro Stations
- Metro
- Light Rail Stations
- Light Rail

Preliminary Engineering Design

- Traction Power Sub Station
- Central Instrument House

Archeology

- Private Ownership
- Federal Ownership
- State Ownership
- City/County Ownership

- Tax Parcel
- Sensitivity\_Areas\_2012\_09\_07
- Historic District

Index Map

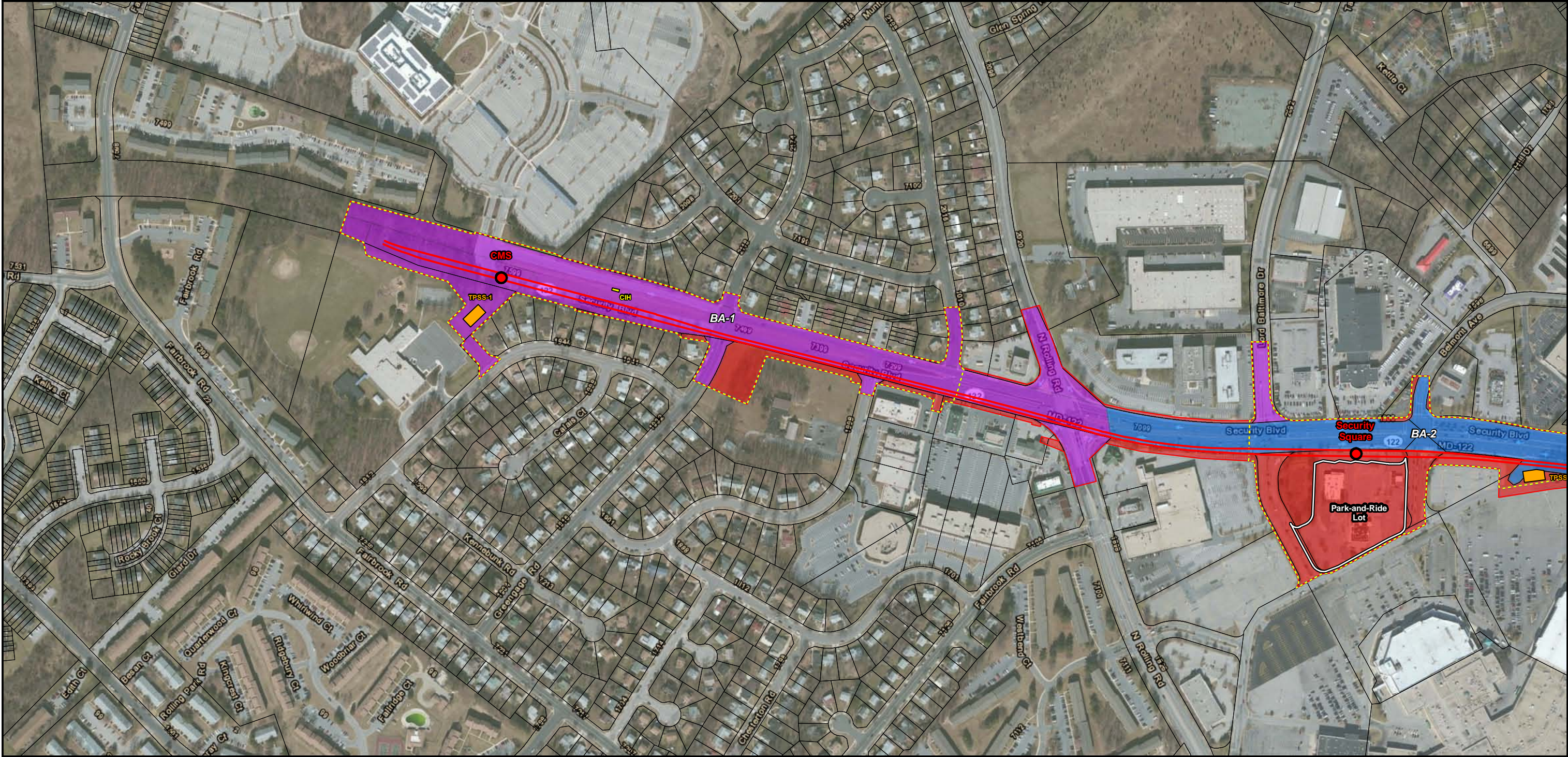
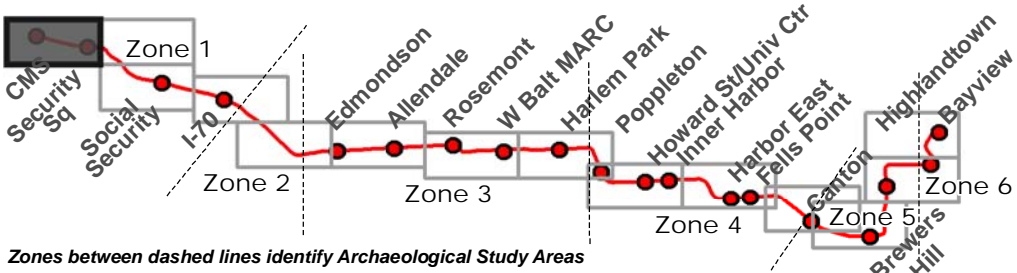




EXHIBIT D: AREAS OF POTENTIAL ARCHEOLOGICAL SENSITIVITY WITHIN THE RED LINE PROJECT APE AND POTENTIAL PROJECT EFFECTS - BALTIMORE CITY AND BALTIMORE COUNTY, MARYLAND

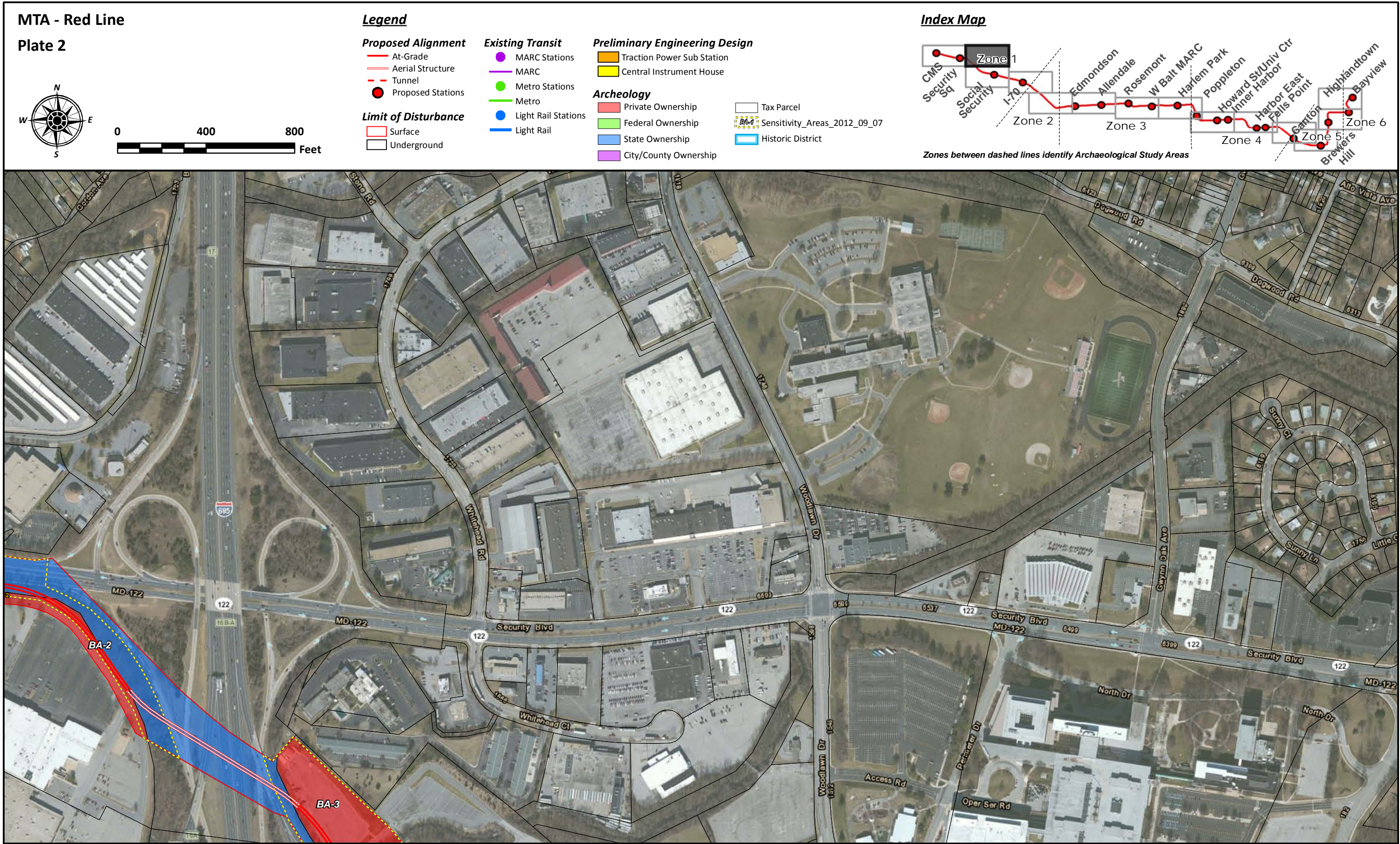












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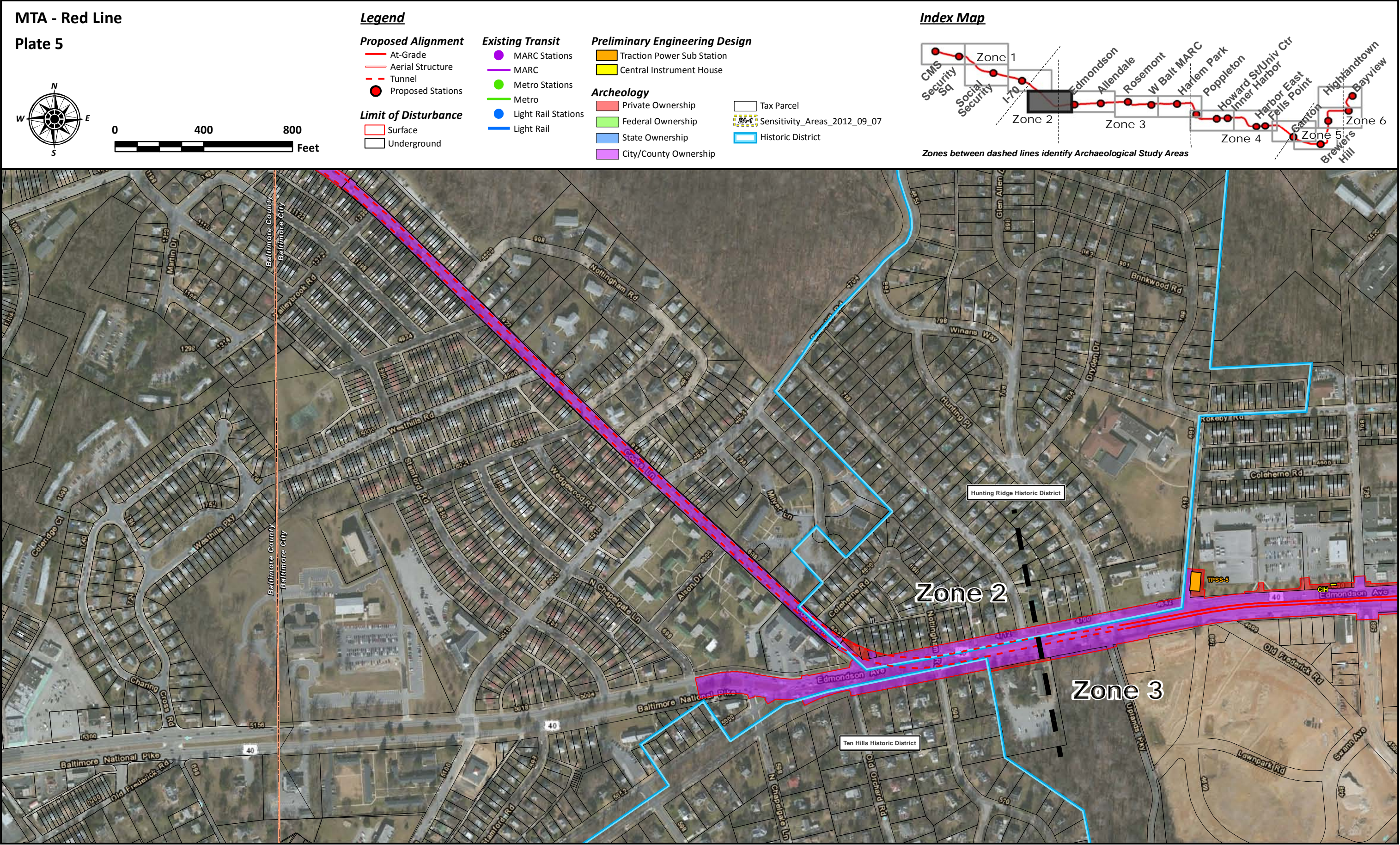








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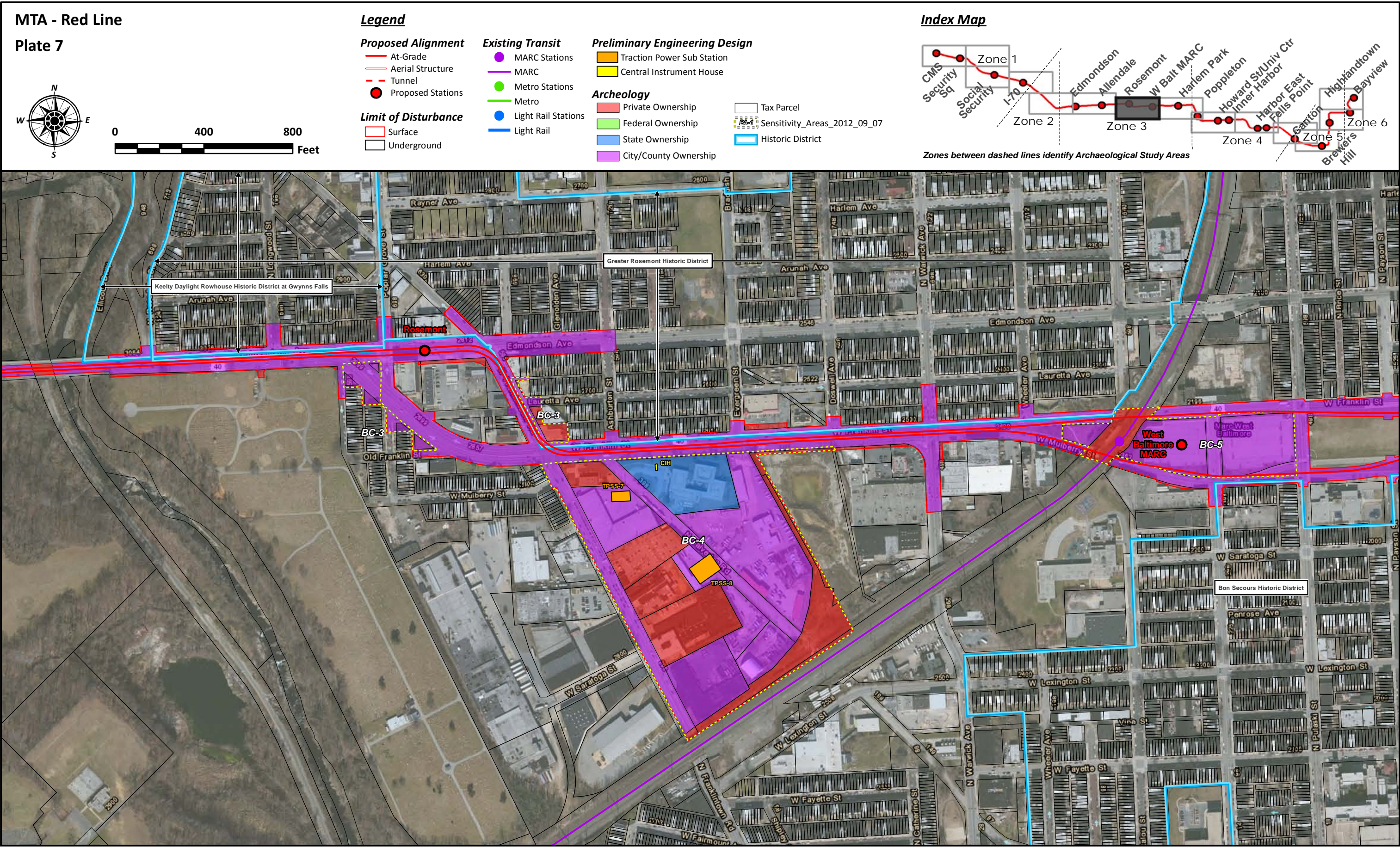




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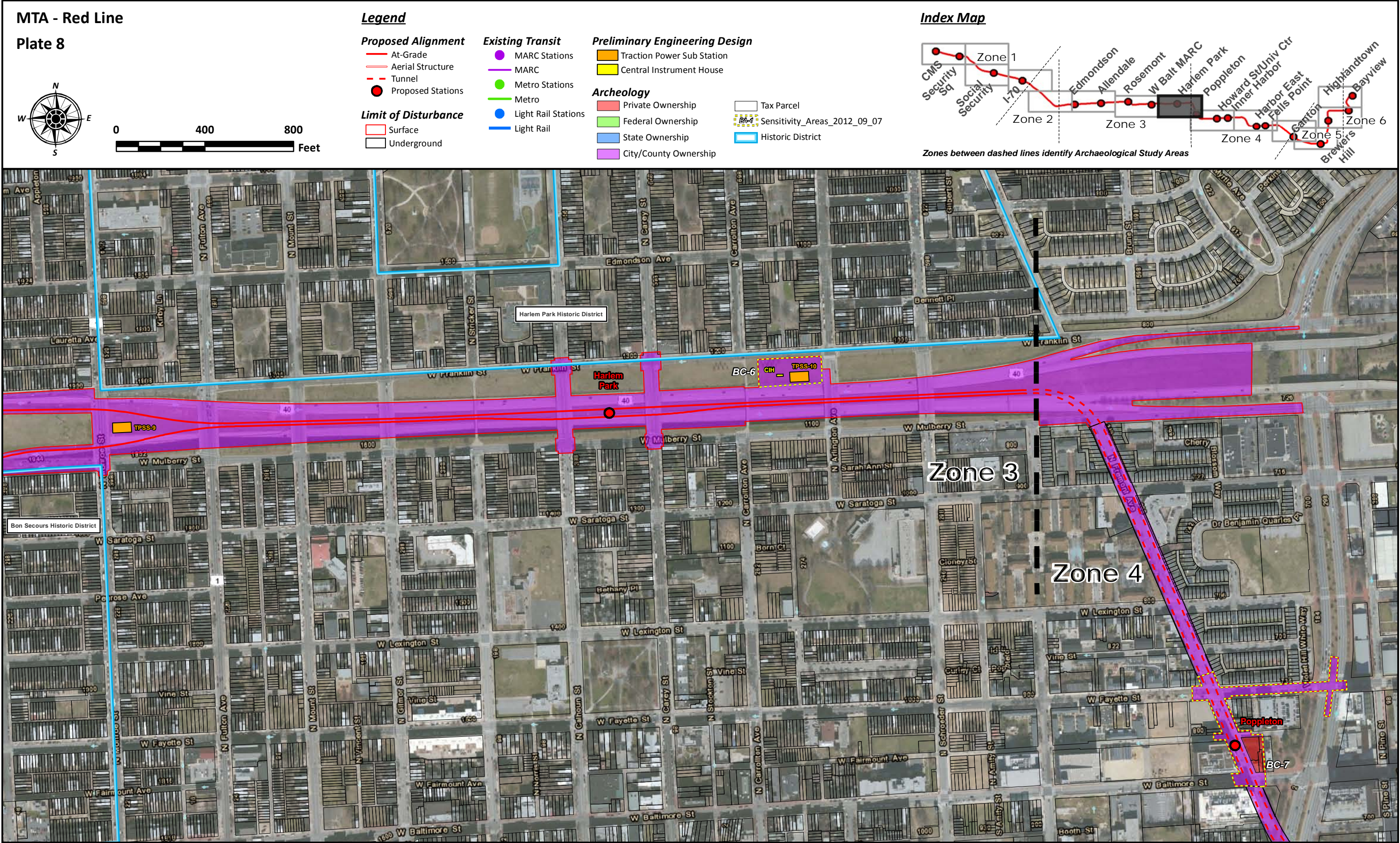




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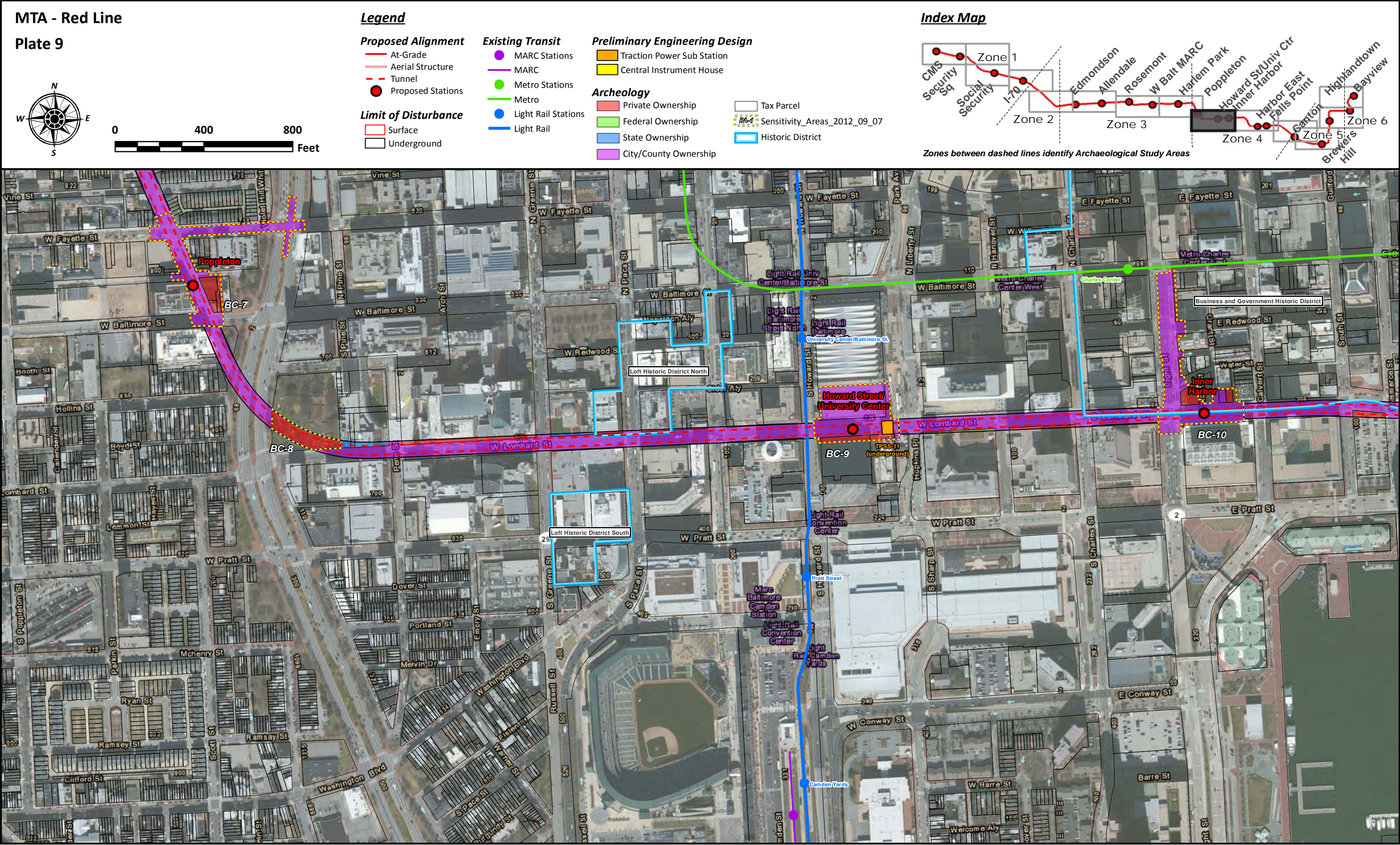




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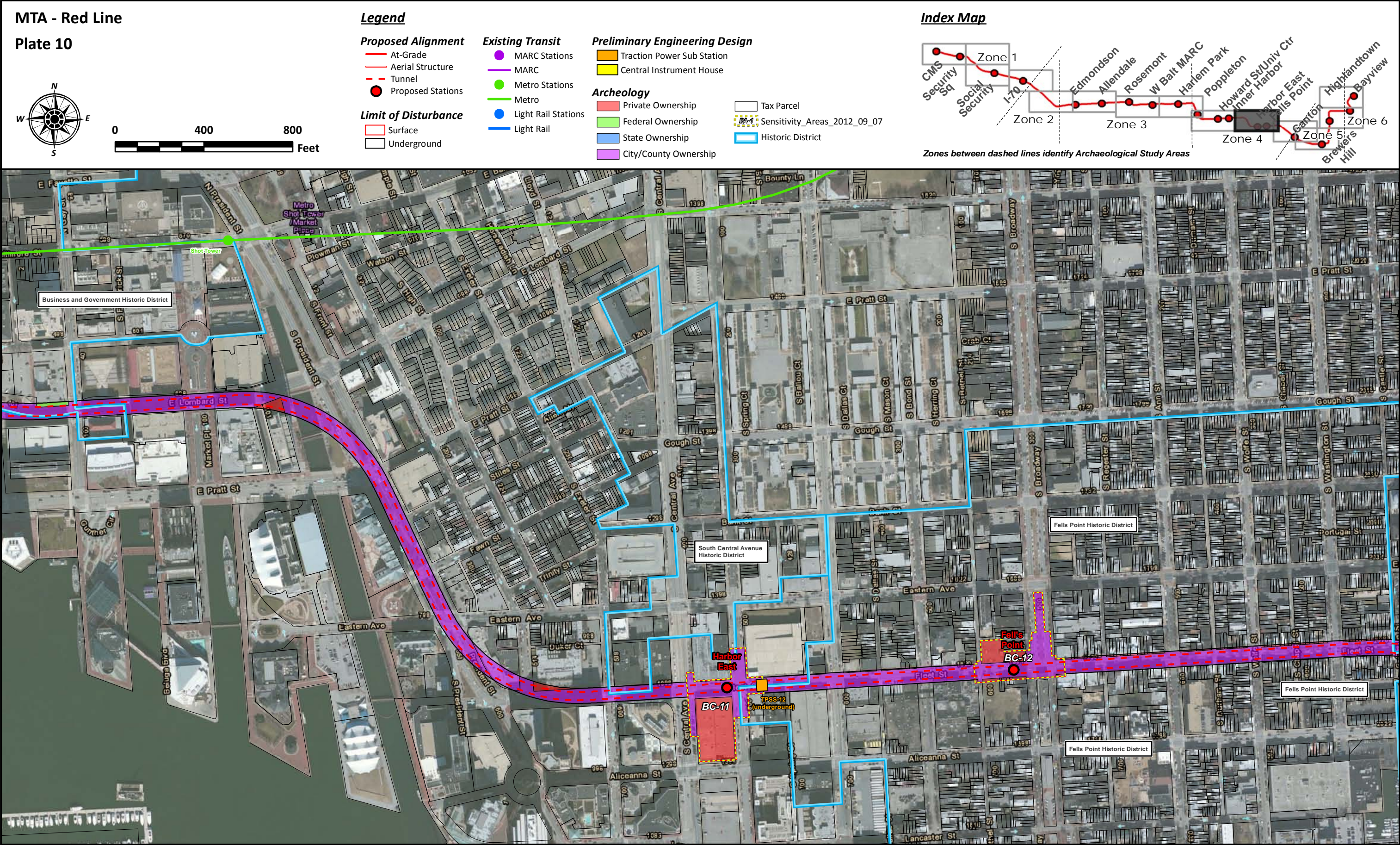




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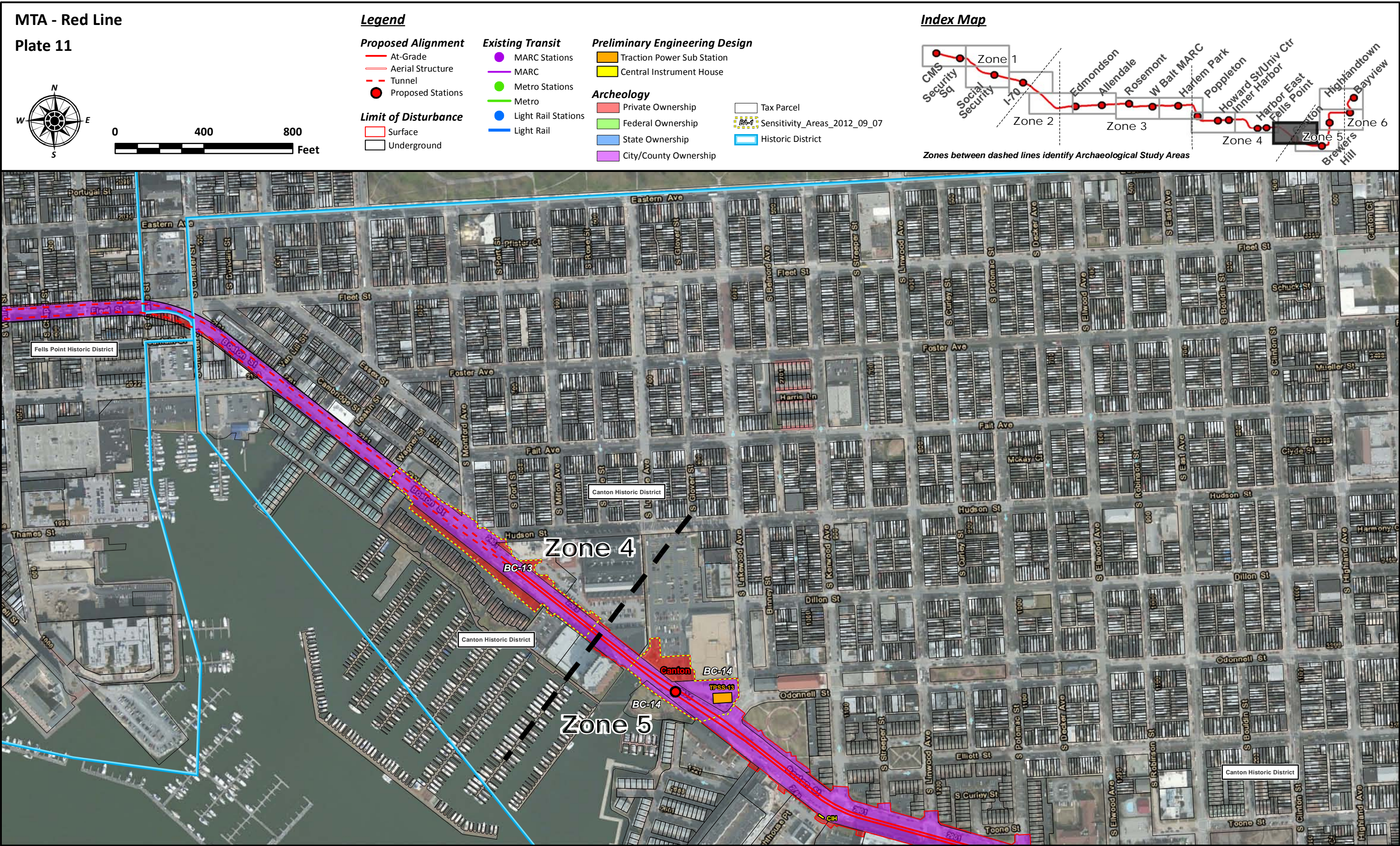




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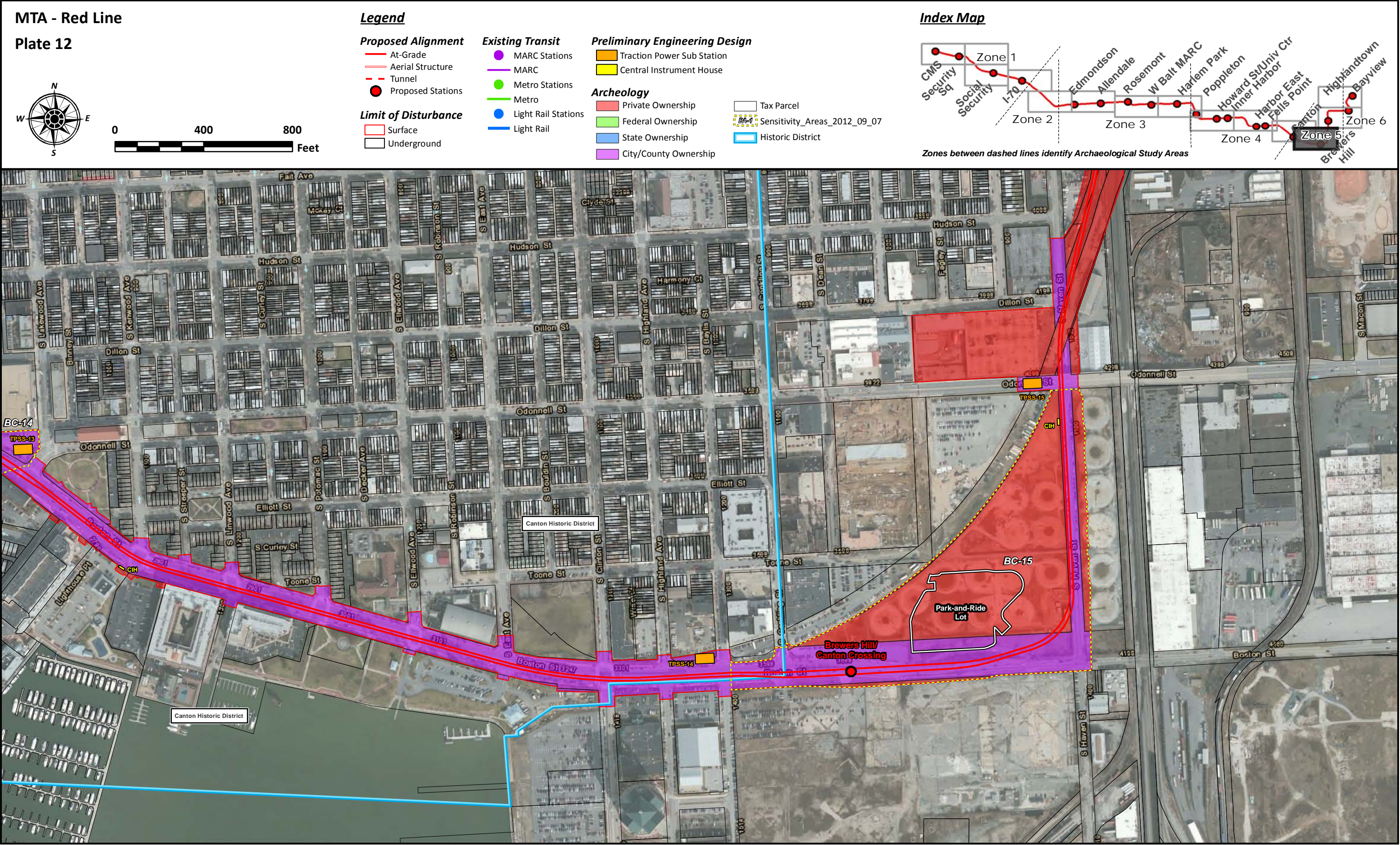




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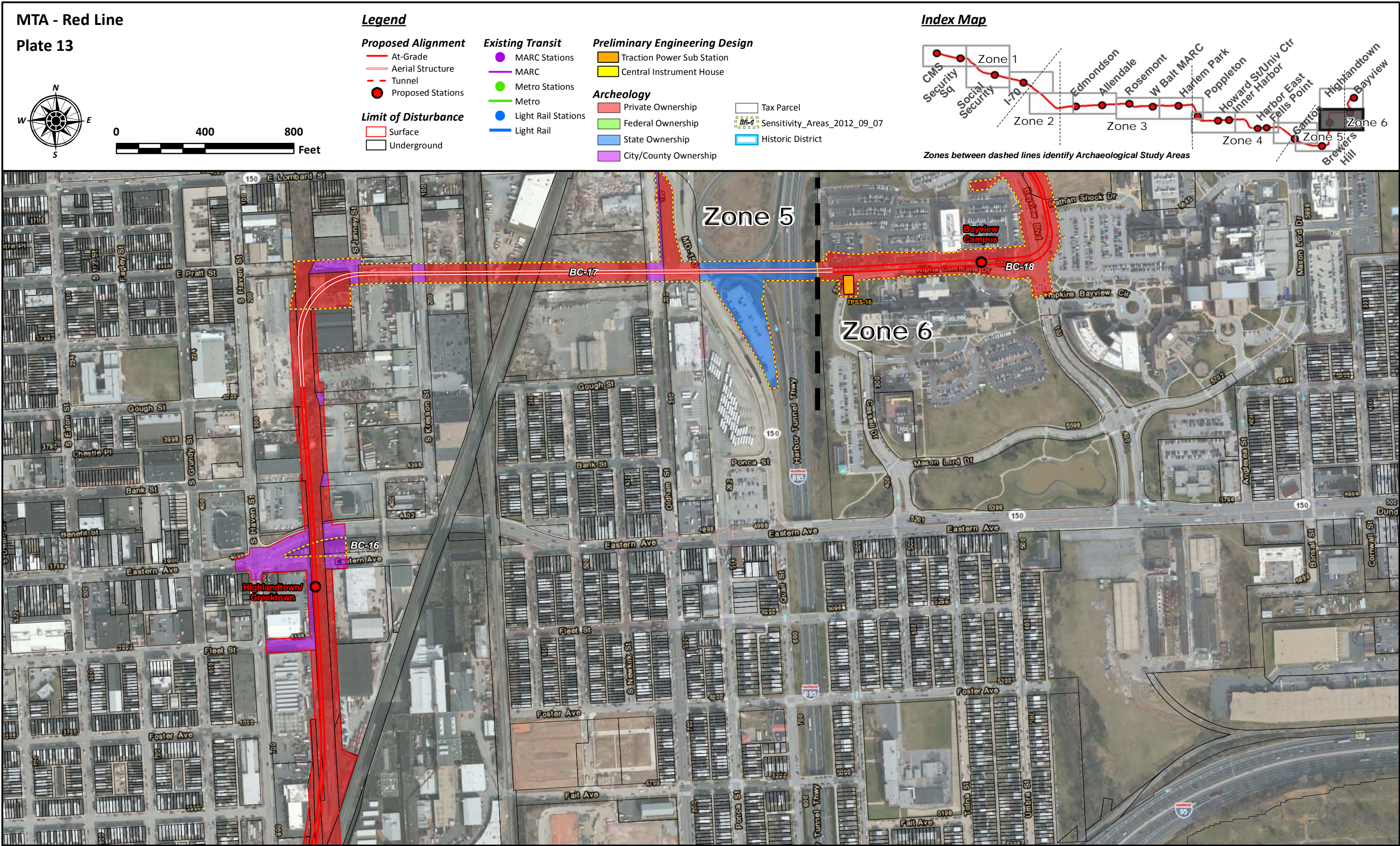
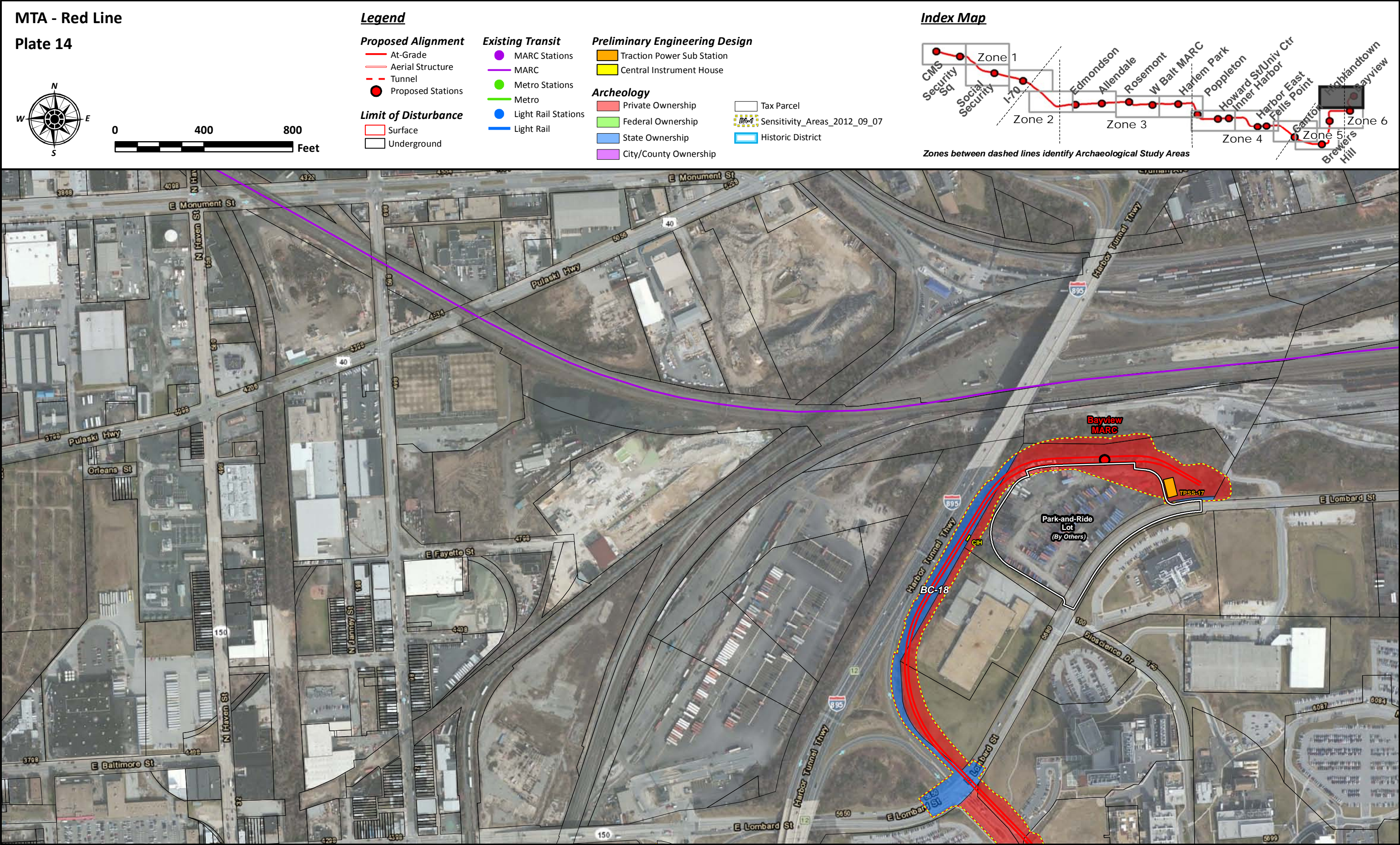




EXHIBIT D: AREAS OF POTENTIAL ARCHEOLOGICAL SENSITIVITY WITHIN THE RED LINE PROJECT APE AND POTENTIAL PROJECT EFFECTS - BALTIMORE CITY AND BALTIMORE COUNTY, MARYLAND





## **EXHIBIT E**

### **CONSTRUCTION PROTECTION PLAN FOR HISTORIC PROPERTIES**

The primary objective of the Section 106 process is to identify Historic Properties and to protect them from adverse effects, including damage or destruction due to a project's construction. The Red Line Project (Project) Construction Protection Plans (CPPs) will provide protocols and stipulations for protecting identified Historic Properties located within the Project's Area of Potential Effects (APEs) during the demolition, excavation, and construction phases of the project. In practice, the CPPs will provide guidance for those designing as well as those constructing the project.

Prior to the commencement of any project demolition, excavation, or construction, detailed CPPs will be developed in consultation with the MHT, MTA, and all other relevant city and state agencies. The CPPs will be based on the requirements stipulated in MHT and MTA documents concerning blasting and vibration and other relevant guidance. It is anticipated that individual CPPs within a comprehensive Red Line Project CPP will be drafted specifically for each major construction segment.

The CPPs will first detail the precise descriptions, locations, and dispositions of all known Historic Properties within the APE. All Historic Properties within the APE will be plotted on the project's geographic information system (GIS), along with the construction alignment to provide a basic awareness to all involved of the project's construction. A typical CPP will consist of the following protective measures:

1. A preconstruction inspection of the potentially affected Historic Property(s) will be undertaken by professional engineers licensed to practice in the State of Maryland (the "Inspecting Engineer"), to ascertain any pre-existing damage, existing structural distress, and any potential weakness of the Historic Property(s) foundations or structures. This activity will take place as part of the construction contractor's work.
2. A written report will be prepared by the Inspecting Engineer (referenced above) documenting any potential weakness or structural distress, and assessing the stability of any applied ornament, together with a protocol addressing any recommended remediation to secure problem areas prior to the commencement of any construction activities that may affect the Historic Property(s). The written report will be supplemented with photographic documentation – in the form of 8 by 10-inch color photographs keyed to a map or plan – in order to provide a clear record of existing conditions and any problem areas.
3. The Design Engineer for the project will specify vibration limits for each Historic Property along the alignment that could be affected by construction. The criteria will adhere to the appropriate MD standards, and the appropriate MTA standards, which limit construction vibration to a maximum peak particle velocity of 0.5 inches per second for historic structures and 2.0 inches per second for non-historic structures. More stringent vibration criteria may be adopted for specific historic structures, based upon the findings of the preconstruction surveys. These limits will be adhered to and monitored for the preservation of the Historic Property(s) by MTA's construction manager.
4. The construction contractor will thereafter ensure that the appropriate vibration limits and any other criteria deemed appropriate by the project design engineer are incorporated into the construction plan. The construction contractor will be responsible for monitoring these controls with periodic inspection by the owner's representative.



5. Under supervision of the Inspecting Engineer, the construction contractor will provide continuous vibration monitoring inside the Historic Property(s), pursuant to the design protocol during demolition, excavation, and construction operations. Seismographs will be installed in the basement and/or the first floor of the Historic Property(s). These units will be located so that they would be away from the general public but accessible to the technicians who must monitor them. The seismographs would measure vibration levels during demolition, excavation, and construction. Prior to the commencement of demolition and excavation operations, the seismographs would be installed and tested to ensure that they are in working order and to enable taking baseline readings. Daily logs of the seismic monitoring would be maintained and submitted to the MHT and MTA upon request.
6. If any excessive vibration (which meets or exceeds the peak velocity level) to a Historic Property is detected, the Inspecting Engineer will notify the Resident Engineer (the Construction Manager's on-site manager) to stop work causing this excessive vibration. The Historic Property(s) will be inspected for any structural degradation that may have occurred. The Inspecting Engineer will submit a report to MHT and MTA detailing the reason for exceeding the peak particle velocity level and the presence or lack of damage to the Historic Property(s). If any damage was sustained, the Historic Property(s) will be secured, and the work that caused any damage would be altered to reduce the vibration levels to within acceptable limits. Following the corrective measure to ensure that the vibration levels are reduced, the Resident Engineer will restart the work.
7. In addition, during excavation the Inspecting Engineer will monitor any exposed vertical rock faces or fissures, joint orientation, and potential weaknesses to ensure that underground utilities that service the Historic Property(s) are protected from damage.
8. Should any cracking in the Historic Property(s) occur during demolition, excavation, or construction, crack monitors would be installed over each crack and monitored on a weekly basis until the Inspecting Engineer deems the cracks to be stable.
9. A general plan will be prepared for the protection of Historic Properties from heavy machinery, including the installation of construction barriers, sensitive Historic Property signage, and the development of machinery operating protocols.
10. Should any Historic Property(s) sustain damage during Project construction, such damage will be repaired and reasonable steps will be undertaken to restore the structure to its condition prior to being damaged. Before undertaking such work, the Inspecting Engineer will consult with MHT and MTA as appropriate regarding the proposed method(s) of repair work and materials to be used. If any work is to be performed on a Historic Property, MHT and MTA shall review and approve such work prior to work beginning and the work shall be performed in compliance with the appropriate standards and requirements.



## **EXHIBIT F**

### **MITIGATION, DATA RECOVERY, CURATION AND PUBLIC INTERPRETATION**

#### **I. DATA RECOVERY PLAN**

If any Archaeological Property is going to be impacted by the Project, means to avoid, minimize, or mitigate the impacts must be considered. If the impacts cannot be avoided a data recovery plan to mitigate the adverse effect to the Archaeological Property will be developed. This mitigation will be accomplished by the recovery and preservation of data from the archaeological site. The data recovery plan will provide a detailed discussion of the site-specific research questions deemed appropriate by the signatories to the Programmatic Agreement and considered important at the local, regional, and/or national level. The plan will provide a discussion of the research topics and questions to be addressed, the types of data that will be collected to address these questions; strategies and testing methodology for the recovery of the necessary data; methods of analyses and interpretation; and any other necessary information deemed appropriate by the MHT and other involved state and federal agencies. The data recovery field excavations will be as complete as possible to address the research questions established in the plan. Detailed laboratory analysis will be performed on recovered cultural materials, followed by cataloguing and preparation for curation. A public education program will also be included in the data recovery investigations to disseminate the recovered information to the archaeological community and the public.

All data recovery investigations will follow the guidelines established in *Standards and Guidelines for Archeological Investigations in Maryland* (Shaffer and Cole 1994), as well as follow the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* (48 CFR 44716) and the Advisory Council on Historic Preservation's 1980 *Treatment of Archaeological Properties*. The plan(s) will be developed and implemented by a Principal Investigator who meets the Secretary of the Interior's Professional Qualifications Standards (48 CFR 44738-44739). The data recovery report will also follow the Secretary of the Interior's Format Standards for Final Reports of Data Recovery Programs (42 CFR 5377-79).

#### **ANALYSIS AND CURATION OF MATERIALS AND RECORDS PLAN**

All archaeological materials and records resulting from archaeological survey, evaluation, and data recovery investigations will be subjected to laboratory analysis, conservation, and curation. Laboratory processing and analysis will include cleaning, identification, and cataloging of any recovered cultural materials; cataloging and processing of select soil control and feature flotation samples, specialized analyses and interpretation of organic remains and in-depth analysis of the spatial distributions of archaeological materials and features. Appropriate conservation measures for artifacts will be taken as necessary. The disposition of archaeological remains and records will be completed following the completion of all laboratory analyses and conservation measures. MTA will identify an appropriate repository for curated archaeological collections in consultation with the MHT. Collections recovered from archaeological sites in the APE will be processed and curated following MHT's *Collections and Conservation Standards* (2005).

#### **PUBLIC INTERPRETATION**



Any data recovery effort will include public outreach. The purpose of the public outreach is to provide information on the data recovery effort and any archaeological resources uncovered as a result of that effort to the general public. Public outreach may take the form of the publication of a brochure or non-technical report, public lectures, information kiosk, or web page, but is not limited to those formats. The specific form that public information effort takes will depend on the nature of the resource and the design of the data recovery operation, and will be determined in consultation with the MHT.



## **EXHIBIT G**

### **CONSTRUCTION AND ARCHEOLOGICAL PHASING PLAN**

The *Construction and Archeology Phasing Plan* will outline, by construction contract, the order and type of the archaeological investigations. It will include all mapping/GIS data on the locations of known archaeologically sensitive areas, areas that contained archaeological resources or were sensitive for archaeological sites and have been cleared (only human remains will be assumed to be of value in “cleared” areas), archaeological sites that have been evaluated and found not to meet Historic Properties criteria, cemeteries, and Archaeological Properties (archeological resources that meet Historic Properties Criteria). The plan will correlate construction activities with the archaeological investigations that are necessary within the areas encompassed in each contract.

The *Construction and Archaeology Phasing Plan* will be developed once the construction contracts and schedule are further developed during final engineering. The plan will be reviewed and amended (as appropriate) as each construction contract is awarded.



## **EXHIBIT H**

### **PROTOCOL FOR WORK IN AREAS WITH THE POTENTIAL FOR HUMAN REMAINS**

Based on Section 106 documentation prepared for the Red Line project, the potential for human remains exists in only one location within the project APE, the St. Paul Cemetery located in the northeast corner of the East Lombard Street and Martin Luther King Jr. Boulevard intersection. The profile of the tunnel alignment in this area will result in project impacts 40 to 50 feet below ground surface in the cemetery area, below the depth of any crypts and vaults interred within the property. In addition, no surface impacts associated with the Red Line project are proposed within or adjacent to the cemetery. However, secondary impacts associated with vibration during the tunneling process will be monitored during construction, as discussed in **Exhibit E**, to ensure no damage to the cemetery-related resources.

In the event that human remains associated with St. Paul's Cemetery are encountered within the archeological sensitivity area in the Red Line APE, the following methods and protocols would be applied:

- Additional Documentary Analysis
- Descendant Community Consultation
- Development and Implementation of Construction Monitoring Protocol
- Development and Implementation of Field Testing Program
- Disinterment/Reinterment of Human Remains
- Reporting

Details of the Additional Documentary Analysis are described in Stipulation III.C.1. The remainder of the commitments related to work in the archaeologically sensitive area with the potential to contain human remains are described as follows.

#### **A. Descendant Community Consultation**

It is assumed that any activities within the archaeologically sensitive area encompassing and adjacent to St. Paul's Cemetery that uncover human remains will require consultation with the descendant community, as stipulated in the PA, and compliance with the Maryland Cemeteries Act.

Activities within the archaeologically sensitive area encompassing and adjacent to St. Paul's Cemetery resulting in the exposure of human remains will require compliance with Sections 10-401 to 10-404, and Section 4-215, of the Annotated Code of Maryland. Sections 10-401 to 10-404 regulate the removal of all human remains or funerary objects in the State of Maryland. Section 4-215 oversees the disinterment and reinterment of human remains. The States' Attorney in Baltimore City has the authority to permit the removal and reburial of human remains. MTA will obtain the approval of the States' Attorney for Baltimore City for the disinterment and reinterment of any human remains recovered in the archaeologically sensitive area encompassing and adjacent to St. Paul's Cemetery.

MTA, as plaintiff, will name as defendants any living, lineal descendants of any person or persons buried in the Former Burial Ground associated with St. Paul's Cemetery. The



descendant community will be made aware of the pending Court suit via notices published in local newspapers. The Field Testing Plan and Disinterment/Reinterment Plan will be submitted to the Court for review and approval as part of the litigation process. No archaeological investigations or disinterment will occur without consent of the States' Attorney for Baltimore City. Any modifications to the plans subsequent to Court approval will require additional review and approval by the Court; these are not covered in the current proposal.

Consultation with the descendant community and the States' Attorney for Baltimore City will be conducted prior to initiating archaeological fieldwork, and will include:

Prepare draft documentation of the proposed work for MTA to submit to the States' Attorney regarding the proposed work;

Prepare and publish advertisements in local newspapers, in order to notify any descendants, descendant groups, or interested parties;

Attend hearings with the States' Attorney;

Attend meetings with descendants, descendant groups, or interested parties.

**B. Personnel**

A well defined structure to the cultural resources team (Team) and system of communication between that Team and all parties is essential for a successful archaeological monitoring project. Typically a cultural resources team consists of a Cultural Resources Manager (CRM), a Principal Investigator (PI), Field Director (FD) and Field Technicians (FT).

**C. Protocol**

**1. Site Access and Work Conditions**

It is anticipated that any human remains will be encountered within settings that do not require archeological personnel to obtain OSHA Hazwopper training or Personal Protective Equipment (PPE). All archaeological personnel and subcontractors will be informed of and follow all requirements and regulations that may be stipulated in the Health and Safety Plan (HASP) established by the Contractor for construction.

The HASP will be made available to the Team upon request and the Contractor's Health and Safety Officer will be made known to the Team. The Team should also be notified of and included in any on-site meetings or briefings held by the Health and Safety Officer.

**2. Monitoring Task Start**

MTA will inform the CRM when human remains are exposed and provide one weeks notice before any excavations are set to begin. The CRM will be responsible for notifying MHT of the project start date. During that one-week period, one on-site meeting will be held between MTA, the CRM, PI, and the Contractor's Foreman to review the workplan and the procedures for its implementation.



### 3. **Monitoring**

It will be the responsibility of the CRM and/or PI, with support from the Team, to determine the nature of any discovery during construction. This may include human burials or an artifact or cultural feature that may warrant construction to cease for a certain period of time to evaluate the potential extent and significance of the find. Elements of the monitoring protocol are as follows:

**Site Monitoring.** Human remains, if present at all, may be recovered within fill and natural soil horizons. This is anticipated to be as much as 20 feet below the ground surface. The protocol stipulates that all excavators are to be accompanied by an archaeologist, who will provide direction to the excavator as to the depth and manner in which excavation is to proceed. As natural soil horizons are exposed, the Team will halt further mechanical excavation by the contractor until the area is declared a Cleared Site.

**Stop Work.** If cultural features are uncovered during a construction activity, the Contractor's Foreman will stop all activity within the immediate vicinity of the discovery and notify the Resident Engineer and the CRM. Specifically, the construction crew will stop at the spot where the find was uncovered and not resume construction within 20 feet of the find until cleared to proceed by the Resident Engineer and CRM. This is necessary in order to provide the CRM the opportunity to determine whether the feature(s) represents a potentially significant site. The Monitoring Protocol will include the duration for which Stop Work orders may last.

**Determination of Significance.** The CRM and/or PI are responsible for investigating the artifacts and/or features and determining their cultural provenience. Hand excavations and soil screening by the Team to the extent necessary to identify and assess the objects or features may be required. If the objects and/or features are determined by the PI and CRM not to be significant, the Resident Engineer will contact the Contractor's Foreman to resume work. The Monitoring Protocol will include the duration for which work stoppages for assessment purposes may last.

If the artifacts and/or features are determined by the CRM to be potentially significant archaeological deposits, the Resident Engineer, MTA and the MHT will be notified. The area will be secured with highly visible, protective fencing and no work by the Contractor will be allowed to continue within that area until it has been cleared by the CRM, MTA and the MHT. The extent of the area to be protected will be defined by the CRM in consultation with the Resident Engineer but will include sufficient space to adequately sample the cultural deposits and stage the work space for the archaeological excavation. The purpose of the investigation will be to determine the significance of the features. It is anticipated that the archaeological excavations may take up to two (2) days; however, work may be stopped for a longer period to allow for field views and meetings. The Contractor may be requested to provide assistance with the use of mechanical equipment, etc., under the direction of the CRM or PI. MTA will be contacted with any such requests and they will pass the request on to the Contractor. MHT in consultation with MTA and the CRM will make the final determination as to the level of effort required to definitively assess the



research potential and significance of the archaeological deposits. The MHT will be responsible for attending all necessary field views, meetings or phone conferences in order to make timely decisions.

**Data Recovery.** If the CRM recommends the site is an archaeological property and MTA and the MHT concur, a data recovery will commence. See **Exhibit F** for a discussion of Data Recovery efforts.

4. **Monitoring Task Stop**

While the excavations are underway, no construction activities within the sensitive area are to take place until it has been determined a *Cleared Site*. The archaeologically sensitive area may be determined a *Cleared Site* upon completion of the archaeological investigation, if no human remains or other significant archaeological deposits are encountered. Otherwise, the sensitive area (or portion thereof) may not be declared Cleared until the disinterment of human remains or Data Recovery operations are complete.

5. **Cleared Site**

Once the monitoring task is completed, an assessment will be made by the CRM as to whether any human remains (or any other significant cultural remains) are present within the archaeologically sensitive area. This determination will be communicated to MTA and notification will be sent by MTA to the States' Attorney's Office and the MHT. Opportunities for a site visit and/or meetings will be made available.

In the event that no human remains or archaeological sites are present, and with the concurrence of all parties, the archaeologically sensitive area will be declared a *Cleared Site*. MTA will communicate this determination to the Contractor, and construction activities may resume.

In the event that human remains are encountered in the sensitive area during mechanical excavation, the CRM will notify MTA, who will notify local police, the appropriate Coroner's Office, and the appropriate States' Attorney's Office. The area surrounding the remains will be secured and work will be suspended in the immediate area of the remains until permission to proceed has been received from the aforementioned parties.

It is not expected that the parties contacted above will insist on any long-term stoppage of archaeological work. The disinterment/reinterment program will then be instituted and that portion of the archaeologically sensitive area that contains human remains will be secured and remain off-limits to all non-necessary personnel as determined by the CRM in consultation with MTA until the site is determined to be Cleared. This information will be communicated by the CRM to MTA, who will inform the Contractor. Areas containing human remains may be restricted to a portion of the archaeologically sensitive area. Consultation between the CRM, MTA and the MHT will determine whether any portion of the sensitive area may be declared Cleared while the exhumation process is underway in other areas. MTA will be responsible for informing the Contractor of that decision and making all necessary arrangement to demarcate the limits of the *Cleared Site*.



**D. Field Testing Program**

Once excavation has exposed the horizontal extent of the human remains or cultural features, all Contractor excavation will cease and the archaeological investigation will begin. The Monitoring Protocol will establish the duration of this task. It is assumed that the excavation will be secured by the Contractor according to OSHA standards for safe entry into a confined space. Points and equipment (e.g., ladders, etc.) for ingress/egress to the excavation for personnel and equipment will be established and maintained by the Contractor.

**E. Field Investigation**

Once the site has been prepared for investigation, a multi-phased approach will be adopted for the preliminary investigation of the area of sensitivity. The recommended steps to determine the presence or absence of human remains are the following:

**1. Strip Block Excavation**

Archaeologists will direct the excavation of up to six strip blocks within the sensitive area by mechanical equipment with a non-toothed bucket. These strip blocks will measure approximately 10 ft in width by 30 ft in length and may be of variable depth. The mechanical equipment will remove any residual fill material to be present and expose the subsoil horizon. The purpose of this will be to expose the outlines of any grave shafts that may be present. The strip block excavations will be conducted under the direct supervision of the PI. The location and dimensions of each strip block will be recorded using a Total Station and plotted on project engineering plans using GIS.

**2. Hand Excavation**

Once the strip block is mechanically excavated to a sufficient depth, the floor of the excavation will be cleaned by hand using flat shovels and trowels. Each trench location will be recorded with a Total Station. A small tent will be erected over the trench location to ensure privacy during the review of the trench floor. Each shaft identified will be photographed; its dimensions will be recorded on standardized forms and assigned an individual number and its location recorded with the Total Station.

At selected shaft locations, once a feature has been documented, the shaft will be hand excavated until the top of the coffin/casket or other receptacle has been reached and fully exposed within the trench. The shaft fill will not be screened for artifacts. The identification of a coffin/casket within a shaft will be taken to indicate the presence of human remains. No human remains will be intentionally exposed during this investigation. If, however, human remains are unintentionally exposed during the course of this investigation, work in that area will be stopped and MTA, local police, the City Coroner's Office, and the States' Attorney's Office will be notified. Any exposed grave shafts will be back filled immediately upon completion of documentation. All trenches will also be backfilled upon completion of the investigation, to be disinterred later under the provisions of the disinterment/reinterment protocol (see below).



F. **Interim Reporting**

A brief, interim report will be produced after the archaeological investigation is completed. The report will detail the findings from both the excavation monitoring and the archaeological investigation. The report will also include recommendations regarding the need for further archaeological monitoring, excavations, or disinterment. The interim report will be submitted by MTA to the MHT for review and comment. It is anticipated that a meeting will be held to discuss the results presented in the report and agree upon any future archaeological actions in this portion of the APE. No construction activities are to resume in the archaeologically sensitive area until permitted by the MHT and the States' Attorney's office.

G. **Disinterment/Reinterment Plan**

The goal of the Disinterment/Reinterment Plan (Plan) is to remove any human remains that may be found in the area of sensitivity with the requisite level of respect and dignity, meeting all legal responsibilities issued by the States' Attorney's office, while remaining within the anticipated budget and schedule.

The Disinterment/Reinterment Plan contains the following elements:

Provisions for Site Security

Permits and Safety

Staging

Archaeological Disinterment Team

Disinterment Process

Reinterment Process

Provisions for Public Outreach

Proposed Timeline based on areal extent of sensitive area and time required by previous investigations

1. **Provisions for Site Security**

Given the high visibility of the APE, provisions must be made to secure any area containing, or suspected of containing, human remains from un-authorized entry to the site. To this end, the Plan stipulates that security fencing with locked gates be erected at the site once the presence of human remains has been ascertained and the dimensions of the burial(s) within the APE have been established. The area to be fenced will be large enough to stage and complete the disinterment project. To ensure security during off-hours, a private security firm will be hired to patrol and monitor the site during evening and weekend hours, or any other time that project personnel are not present. Private security will only be hired for the time during which burials are still present at the site; once they have been completely removed the security fencing will be removed and the security patrols will be terminated.

Security will also be extended to the excavation and removal of the human remains. Temporary work shelters will be erected over individual (or small



groups of) graves while they are in the process of being excavated and their remains removed. The shelters will permit adequate interior work space, but will prevent any outside persons from viewing the remains or the disinterment process. The shelters will also permit the disinterment team to work in most if not all weather conditions.

## 2. **Permits and Safety**

It is anticipated that a Disinterment-Transit Permit will be required under the terms that will be ordered by the States' Attorney's office.

MTA will develop a HASP specific to the disinterment project. This HASP will be in addition to the general HASP developed by the Contractor for construction, and focus on the particular health and safety issues involved in the handling of human remains within the context of working within an active construction site. Considerations that should be contained in the HASP include but are not limited to:

precautions against infectious diseases when handling human remains;  
requirements for Personal Protective Equipment;  
working in confined spaces.

## 3. **Staging**

The extent of the requirements for staging of the disinterment process will depend on the number and size of the burials within the APE. Minimally, disinterment staging will require the following facilities and provisions:

Off-site laboratory and temporary morgue. An appropriate off-site laboratory and storage facility will be obtained for the processing, analysis and temporary storage of the human remains until their reinterment. All equipment used by the archaeological team will be stored in the off-site laboratory. The locality will be secure and climate controlled to prevent rapid decay of organic remains. Access keys to this facility will be limited to only those persons with the authority and the need to enter. Here the human remains will be cleaned for analysis by the Human Osteologist. All artifacts that accompany the deceased will also be processed and cataloged and stored together with the burial.

## 4. **Archaeological Disinterment Team (AD Team)**

The AD Team will consist of a Principal Investigator (PI); Human Osteologist (HO); Field Director (FD); Laboratory Director (LD) and Research Technicians (RT). The roles, responsibilities and qualifications for each position are as follows:

*Cultural Resources Manager.* The CRM will meet the qualifications specified in the Secretary of the Interior's Professional Qualifications for Archaeology (46CFR4471.6) and have the appropriate professional background experience for the types of resources anticipated at the work site. The CRM



will be the point of contact between the AD Team, MTA, officers of the Contractor, project sponsors and state and federal review agencies. They will be responsible for tracking the progress of monitoring activities, adherence to the monitoring protocol by the archaeological team, schedule and budget. They will be the conduit for communicating issues originating within the archaeological AD Team to the appropriate parties. Periodic status meetings between the CRM, PM and review agencies may be advisable, depending on the length and complexity of the project. Brief status reports prepared by the CRM may be an appropriate alternative.

*Principal Investigator.* This individual will also meet the qualifications specified in the Secretary of the Interior's Professional Qualifications for Archaeology (46CFR4471.6). The Principal Investigator will be on site at all times specified in the monitoring protocol. They will be responsible for implementation of the protocol on site and the quality of work performed by the AD Team. The PI will confer with the Foreman for the Contractor (or other agreed upon person) on any decision to halt work and the Contractor will direct their personnel accordingly. The PI will be responsible for communicating to the Contractor's Foreman the need for a member of the AD Team to provide guidance to excavators in areas of high sensitivity or where archaeological remains have already been found. In these circumstances, 'guidance' refers to telling where and how deep an excavator is to dig and when and for how long they are to stop. This level of communication is necessary for creating a safe work environment.

The PI is also responsible for informing themselves of any HASP that is developed for the work site by the Contractor, know who the Health and Safety Officer is, and assure that the AD Team is in compliance with the rules and regulations included in the HASP. The AD Team will be equipped with and wear all required personal protective equipment, if required, as specified in the HASP. The AD Team should also be notified of and included in any on-site meetings or briefings held by the Health and Safety Officer.

*Human Osteologist.* The HO will be responsible for identifying all of the human remains that are encountered during the monitoring and disinterment procedures. They will be a qualified professional with a minimum of 3-5 years' experience in the identification of human remains. They will provide necessary training to the Field Technicians in the excavation of skeletal remains and in the preliminary identification of skeletal elements. The HO will be responsible for the final identifications, osteometric measurements, age/sex determinations and the notation of any pathological conditions or other significant abnormalities.

*Field Director.* The FD will be responsible for assisting the PI in directing and managing the field crew, collecting and organizing equipment, paperwork, etc. on a daily basis. They will be competent to review and evaluate the accuracy and adequacy of field notes and drawings produced by the FTs. The FD should have a minimum two years' experience investigating sites of comparable cultural affiliation, date and function.

*Field Technician.* Field technicians should have the requisite skills and experience to work with minimum supervision and produce acceptable field



notes, scaled drawings or other forms of recordation required by the project. They work under the direct supervision of the FD and the PI.

## 5. **Disinterment Process**

As the disinterment proceeds, the AD Team will be subdivided into smaller units to accomplish a number of set tasks necessary to locate, excavate and disinter all human remains that may be located. Those specific tasks and the organizational structure designed to complete them are as follows:

Site Stripping. The archaeologically sensitive area will have been stripped of its overburden and some individual graves exposed before the disinterment process begins. These initial excavations will provide information on the depth at which individual grave shafts may be distinguished and their distinguishing soil characteristics. To the extent possible, and site conditions permitting, mechanical equipment will be used for the purpose of stripping all remaining overburden to the level where the outline of individual grave shafts may be observed in the surrounding soil matrix.

Site stripping will be monitored by disinterment team members. The PI or FD will be present at all times and will guide the operator during the process. The goal is to remove only sufficient soil to distinguish the location of grave shafts, without disturbing their contents. Under the guidance of the FD and/or PI, research technicians will follow after the mechanical equipment with hand tools (flat shovels and trowels) to further clear and demark the dimension of each grave shaft. The outline of each grave shaft will be marked by a series of nails and string to mark the horizontal profile of each grave as clearly as possible.

Mapping. Following the stripping crew, a mapping crew will record the location and dimension of each grave shaft. A Total Station will be employed to record all diagnostic points and establish the vertical dimension of the height of each feature. Each grave shaft will be provided a unique feature number and all locational and identification information will be transferred from the Total Station to project base mapping at the end of each field day.

Excavation/Exhumation. Once all grave shafts have been cleaned, located and mapped, the excavation and disinterment process will begin. Tents or shelters will be erected over one or more shafts prior to excavation. Teams of two or three Research Technicians will be engaged in the excavation of each grave shaft. Once human remains were identified and exposed *in situ*, a separate team of data collectors will record electronically on standardized forms installed on field computers all pertinent information for each burial. At a minimum that information will include:

- Measurements of the total length of each individual
- Depth measurements of the interment
- Digital photographs of each individual
- Record of all artifacts associated with each burial
- General observations regarding position and treatment of the body, conditions affecting preservation, distinguishing features, etc.



Once all the human remains and associated objects from each burial are recorded, the excavation crew will remove them from the grave and place them in a container, which will then be taken immediately to the off-site laboratory. The Laboratory Director will receive them and log them into the laboratory directly upon receipt.

Laboratory Processing. The Laboratory Director will be responsible for reviewing the remains of each burial together with the electronic field records to ensure correct identification and that all associated artifacts are present. All human remains will be dry brushed (water will be used for cleaning bone only as necessary) and allowed to air-dry in the climate-controlled laboratory. All inorganic artifacts will be washed and subsequently cataloged. All non-human organic remains will be treated as appropriate and maintained in an appropriate stable medium or environment until their final reinterment.

The HO will examine each of the burial remains once the cleaning process has been completed. The following tasks will be performed by, or under the direct supervision of, the HO for each of the individuals recovered:

- a) Photographs will be taken of pathologies
- b) Osteometric measurements will be taken as per *Standards for Data Collection from Human Skeletal Remains* (24 cranial, 10 mandibular, 44 postcranial)
- c) Will note presence or absence of 24 non-metric traits
- d) Will note any post-mortem damage to the human remains
- e) Will corroborate the fields taken by the excavation team and any additional notes made by the LD during the initial inspection of the remains in the on-site laboratory.

No destructive analyses of the human remains will be conducted. Following the analysis of the individual burials, the HO will produce a general description, count, assessment of preservation/completeness, estimation of the Minimum Number of Individuals (MNI), gender, age, stature, race, and a description of pathologies for the entire population recovered during this operation.

The human remains and all artifacts associated with them will be re-boxed in plastic containers once the osteological analysis has been completed and all artifacts cataloged. They will remain in storage in the off-site laboratory and temporary morgue until final reinterment.

## 6. **Reinterment Process**

The reinterment process will consist of the following tasks: selection of a reinterment cemetery; preparation of the reinterment parcel, including installation of burial vaults; transferring the remains from the site to a new permanent location; and the design and installation of monuments memorializing the disinterment and reinterment program.

A primary goal of the work plan presented here to effect the reinterment process will be to reinter any human remains encountered as part of the Red Line Project. If burials are encountered as part of this project, a reinterment plan will be



developed in consultation with MTA, FTA, and all appropriate state and local agencies and parties.

## **7. Public Outreach**

It is anticipated that if human remains are encountered, significant public interest in the project will result. Due to the sensitive nature of the potential remains and the results with which they must be treated, it is assumed that MTA will assume all responsibility and authority for making public notifications of the work being conducted. It is also assumed, as part of this work plan, that the CRM and/or PI will be requested by MTA to provide information on the progress of the investigation for the purposes of public notification and/or attend press conferences or field meetings for that purpose. All public outreach conducted as part of the disinterment/reinterment project will be performed at the request and direction of MTA.

## **H. Final Reporting**

Depending on the results of the archaeological monitoring and investigations, two different reporting requirements may be anticipated. If no human remains are encountered, a Phase IB/II Archaeological Investigation Report will be prepared and submitted to MHT and MTA. Results of the field investigation will be presented in the report, together with a site interpretation, evaluation of eligibility for listing in the National Register, a catalog of any artifacts encountered, maps and photographs, as appropriate.

If human remains are encountered the Phase IB/II Archaeological Investigation Report will be augmented by the inclusion of a full discussion of the disinterment of the human remains and their re-interment.

Regardless of the positive or negative results from construction monitoring and the preliminary archaeological investigation, a Determination of Eligibility (DOE) Report will be produced. The DOE Report will contain a description of the resource, detailed historic and contemporary maps depicting the boundaries of the resource as best as they can be established, and an evaluation of the eligibility of the site for inclusion in the National Register of Historic Places. This work plan does not include the effort to have the site placed on the National Register of Historic Places.

## **HUMAN REMAINS OUTSIDE OF THE AREA OF SENSITIVITY**

Encountering human remains outside of this area would constitute an unanticipated discovery and as such, is treated in **Exhibit L**. The methods and protocols described above would be modified as necessary to account for the location where the remains are found. In the event that Native American human remains are identified within the APE outside of this area of sensitivity, coordination would be required with the MHT, MTA and the appropriate Native American groups. Modifications to the above protocol would be made as necessary to accommodate cultural sensitivities of the Native American groups.



## **EXHIBIT I**

### **RED LINE PROJECT SOIL BORINGS PROGRAM AND ARCHAEOLOGICAL RESOURCES PROTOCOL**

As stated in Stipulation III.C.2 of the Programmatic Agreement, a soil boring program has already been initiated by the MTA during the Preliminary Engineering phases of the project. The purpose of the program is to determine geotechnical and environmental subsurface conditions along the alignment. In order to further refine our understanding of the archeological sensitivity of the APE, any future geotechnical and/or environmental borings to be conducted as part of the Red Line project shall adhere to the following procedures. Borings may occur at any point preceding construction, including during and after Final Design.

#### **I. RETAIN PROFESSIONAL ARCHAEOLOGIST(S)**

MTA agrees to retain the services of a professional archaeologist(s) who will provide archaeological expertise during the Soil Borings Program as described below. The professional archaeologist(s) will meet at minimum the Secretary of the Interior's Professional Qualification Standards.

#### **II. REVIEW OF BORINGS LOGS BY THE PROFESSIONAL ARCHAEOLOGIST(S)**

MTA agrees that any boring samples taken and/or boring logs prepared as a result of geotechnical borings taken to determine construction-related subsurface soil conditions will be reviewed by a professional archaeologist. The soil bore information will be used to assess the subsurface conditions and the potential presence or absence of archaeological resources in areas identified as archaeologically sensitive in the Phase IA Archeological Assessment dated December 2007 and/or any subsequent studies.

For each of the future boring locations, the professional archaeologist(s) will determine one of the following:

- A. The area exhibits archaeological sensitivity
- B. The area exhibits a lack of archaeological sensitivity
- C. The boring samples and/or records provide inconclusive findings

Any sites that are determined to contain no archaeological sensitivity will be eliminated from further archaeological consideration. Sites that retain potential archaeological sensitivity or for which potential sensitivity remains undetermined will be carried forward for additional archaeological evaluation, including additional documentary research and/or field testing.

#### **III. GEOTECHNICAL BORINGS IN POTENTIAL BURIAL GROUND SITES**

Borings will not be conducted within the St. Paul's Cemetery. Test borings will instead be performed in nearby areas not identified as sensitive for human remains.

Where borings cannot be practicably avoided in the areas that have been identified as potentially sensitive for human remains, borings will be performed in a manner to avoid any insensitive disturbance to human remains as set forth below:



- A. Hand auguring will be performed in the sensitive area to a depth of at least 6 feet to exceed the depth of any utilities. Beyond that depth, hand auguring will be undertaken based on engineering and safety constraints. At the point where hand auguring is no longer feasible, the soil boring will be undertaken.
- B. The professional archaeologist(s) will be present on-site during hand auguring and the execution of the boring to identify any skeletal material, if encountered. If any skeletal material is encountered, the archaeologist will contact a physical anthropologist/forensic archaeologist, who will be on-call as described below in III.C.
- C. A physical anthropologist/forensic archaeologist will be on-call in the event that skeletal material is encountered, to properly identify if the skeletal material is human. The physical anthropologist/forensic archaeologist will be located in the project area so that he/she may have prompt access to the site. If the remains are identified as human, the protocol for the notification of appropriate parties and treatment of human remains set forth in Section III.C.4. of the Programmatic Agreement will be followed.
- D. Subsurface work will only be undertaken in areas potentially sensitive for human remains following the prior notification of and opportunity for consultation with the MTA, State Medical Examiner, local Police Department, MHT and appropriate descendant community(s), following protocols described in **Exhibit K** of this Programmatic Agreement.

## **REPORTING TO MHT AND FTA**

Following completion of any borings that demonstrate or confirm archaeological sensitivity, MTA shall immediately prepare a brief report summarizing the results of the archaeological evaluations and shall submit this report(s) as addenda to the Phase IA to MHT and FTA as appropriate. In the event that the boring results are either negative or inconclusive, the results will be reported at such time as all borings are completed, and the results of all tests will be presented in a single addendum report to the above-referenced agencies.



## **Appendix J**

### **Section 4(f) Supporting Documents**

#### **Attachment 1**

### **Section 4(f) Resources Identified along the Preferred Alternative Study Corridor**



## Publicly-Owned Public Parks

**Table J1-1. Publicly-Owned Public Parks along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Resource	Park Area	Ownership	Description/Activities
1	Chadwick Elementary School  Located adjacent to the south of the western project terminus	13.38 acres	Baltimore County Board of Education	Parcel contains school buildings, recreational tennis courts and indoor recreational facilities available to the public outside of normal school hours
		6.0 acres	Baltimore County Department of Recreation and Parks	Parcel contains playing fields used by youth leagues and nearby residents outside of normal school hours
2	Gwynns Falls/ Leakin Park	1,200 acres	Baltimore City Department of Recreation and Parks	Contiguous parkland from the western boundary of Baltimore City, following the Gwynns Falls from Windsor Mill Road to Wilkens Avenue; includes woodlands, recreational trails, picnic areas and miniature steam trains in use from April through October
3	<b>Uplands Park</b>  <b>Located in the Uplands/Ten Hills neighborhoods of Baltimore City, on the south side of Edmondson Avenue between Nottingham Road and Uplands Parkway</b>	<b>33.62 acres</b>	<b>Baltimore City Department of Recreation and Parks</b>	<b>Wooded area located in the Upland/Ten Hills neighborhoods of Baltimore City, and bound by Edmondson Avenue to the north</b>
4	Edmondson-Westfield High School	26.04 acres	Baltimore City Board of Education	High school with publicly-owned and accessible playing fields and tennis courts



**Table J1-1. Publicly-Owned Public Parks along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Resource	Park Area	Ownership	Description/Activities
5	<p>Holocaust Memorial Park</p> <p>Located in the downtown area of Baltimore City, on the north side of East Lombard Street at South Gay Street</p>	2.3 acres	Baltimore City Department of Recreation and Parks	Memorial to the Holocaust
6	<p>Columbus Park</p> <p>Located in Baltimore City Inner Harbor area, at the northwest corner of Eastern Avenue and South President Street</p>	0.675 acre	Baltimore City Department of Recreation and Parks	Columbus monument, pedestrian plaza and walking paths
7	<p><b>Boston Street Pier Park</b></p> <p>Located in the Canton neighborhood of Baltimore City on the south side of Boston Street at South Lakewood Avenue</p>	0.75 acre	Baltimore City Department of Recreation and Parks	<b>Includes multi-use paths and a pedestrian bridge/fishing pier connecting to the Baltimore Waterfront Promenade</b>
8	<p><b>St. Casimir's Park</b></p> <p>Located in the Canton neighborhood of Baltimore City on the north side of Boston Street between South Lakewood and South Kenwood Avenues</p>	1.4 acres	Baltimore City Department of Recreation and Parks	<b>Includes open space, walking paths, and benches</b>
9	<p><b>Canton Waterfront Park</b></p> <p>Located in the Canton neighborhood of Baltimore City on the south side of Boston Street between South Linwood Avenue and South Clinton Streets</p>	7.0 acres	Baltimore City Department of Recreation and Parks	<b>Korean War Memorial, a water taxi landing, fishing and crabbing access, pedestrian and bicycle access, and a segment of the Baltimore Waterfront Promenade</b>



**Table J1-1. Publicly-Owned Public Parks along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Resource	Park Area	Ownership	Description/Activities
10	<b>DuBurns Arena (also known as Canton Park)</b>  <b>Located in the Canton neighborhood of Baltimore City on the north side of Boston Street at the intersection with Ellwood Avenue</b>	2.5 acres	<b>Baltimore City Department of Recreation and Parks</b>	<b>Hosts sports and social clubs for various games, as well as sporting events such as roller derby and boxing matches</b>
11	Canton Soccer Park  Located in the Canton neighborhood of Baltimore City on the north side of Boston Street between South East Avenue and South Clinton Street	2.89 acres	Baltimore City Department of Recreation and Parks	Located on the north side of Boston Street in Canton, includes playing fields accessible to the public and used by youth and club sports

Note: <sup>1</sup> **Bold** text indicates significant parks that would be affected by the Preferred Alternative.



## Historic Sites

**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
1	<i>Franklintown Road over Dead Run Bridge (SHA # B0096)</i> Franklintown Road over Dead Run located east of Security Boulevard, Woodlawn, Baltimore County	BA-2853	Eligible	C
2	<i>Franklintown Historic District</i> 5100-5201 North Franklintown Road, 1707-1809 North Forest Park Avenue, 5100 Hamilton Avenue, 5100 Fredwall Avenue	B-1316	Listed	A, C
3	<i>Ten Hills Historic District</i> Roughly bounded by Uplands Park, Edmondson Avenue, and Westgate Road	B-5124	Eligible	A, C
4	<b><i>St. William of York Catholic Church and School</i></b> <b>600 Cooks Lane</b>	<b>B-5100</b>	<b>Eligible</b>	<b>C, Criteria Consideration A</b>
5	<i>Hunting Ridge Historic District</i> Bounded by Edmondson Avenue, Nottingham Road, Leakin Park, Winans Way, and Glen Allen Drive	B-5125	Eligible (the Hunting Ridge Presbyterian Church is within this district and also individually eligible)	A, C
6	<b><i>St. Bartholomew's Episcopal Church</i></b> <b>4711 Edmondson Avenue</b>	<b>B-5105</b>	<b>Eligible</b>	<b>C, Criteria Consideration A</b>
7	<i>Roguel Heights-Ten Hills School (Public School #232, Thomas Jefferson Elementary School)</i> 605 Dryden Drive	B-4614	Eligible	A, C
8	<i>Hunting Ridge Presbyterian Church</i> 4640 Edmondson Avenue	B-5106	Eligible (also located within the Hunting Ridge District)	C, Criteria Consideration A
9	<i>Baltimore Fire Department Co. No. 53</i> 608 Swann Avenue	B-5126	Eligible	A, C



**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
10	<i>Edmondson Village Shopping Center</i> 4404 Edmondson Avenue	B-4223	Eligible	A, C
11	<i>Roguel Heights Historic District</i> Walnut Avenue and cross streets north of Edmondson Village Shopping Center	B-5108	Eligible	A, C
12	<i>Enoch Pratt Free Library, Edmondson Avenue Branch</i> 4330 Edmondson Avenue	B-1384	Eligible	A, C
13	<i>New Cathedral Cemetery</i> 4300 Old Frederick Road	B-5110	Eligible	C, Criteria Consideration D
14	<i>Edmondson Village Historic District</i> Edmondson Avenue to south, Walnut Avenue and North Woodington Road to west, North Hilton Street to east, and on north by Gelston Drive	B-5109	Eligible	A, C
15	<i>Allendale-West Mulberry Historic District</i> Bounded by Edmondson Avenue, Wildwood Parkway, New Cathedral Cemetery, West Mulberry Street, Gwynn Avenue, North Monastery Avenue, West Caton Avenue, North Culver Street, and North Hilton Street	B-5111	Eligible	A, C
16	<i>Keelty Daylight Rowhouse Historic District at Gwynns Falls</i> Two sections located on west and east sides of Gwynns Falls Park: (1) west section bordered by Normandy Avenue, Lyndhurst Street, Gelston Drive, North Hilton Street, West Mulberry Street, Edgewood Street, West Lexington Street, North Grantley Street, West Saratoga Street, and Allendale Street and (2) east section bordered by Gwynns Falls Trail, Ellicott Driveway, Braddish Avenue, West Lafayette Avenue, Poplar Grove Street, and Edmondson Avenue	B-1378	Eligible	A, C
17	<i>Gwynns Falls Park/Leakin Park</i> West Baltimore, Gwynns Falls Valley	B-4610	Eligible	A, B, C



**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
18	<i>Western Maryland Railroad-Tidewater Extension (CSX Tracks)</i>  A relatively short spur of track along the Gwynn Falls	B-1377	Eligible	A
19	<b><i>Greater Rosemont Historic District</i></b> <b>Bounded by West Franklin Street, North Franklintown Road, Poplar Grove Street, Edmondson Avenue, Gwynns Falls Park, North Rosedale Street, Ellicott Driveway, Ashburn Street, Prospect Street, Braddish Avenue, West Lafayette Avenue, West Lanvale Street, North Dukeland Street, Rayner Avenue, Whitmore Avenue, Winchester Street, North Bentalou Street, CSX tracks, Riggs Avenue, and the Amtrak Northeast Corridor (historically the Baltimore &amp; Potomac Railroad)</b>	B-5112	Eligible	A, C
20	<b><i>Edmondson Avenue Historic District</i></b> <b>Bounded by West Franklin Street, North Franklintown Road, Edmondson Avenue, Evergreen Street, Rayner Avenue, Braddish Avenue, St. Peters Cemetery, North Bentalou Street, CSX tracks, Riggs Avenue, West Lafayette Avenue, and Spedden Street</b>	B-5187	Listed 12/27/2010	A, C
21	<b>Baltimore &amp; Potomac Railroad (Philadelphia, Baltimore &amp; Washington Railroad): Contributing Railroad Bridges (west segment)</b>  <b>(established 1872; tunnel [1872]; most other structures and buildings from early part of twentieth century)</b> <b>Between Baltimore City/Baltimore County line (in community of Violetville) at southwest to Baltimore's Pennsylvania Station at northeast (excluding station itself)</b> <b>and</b> <b>Philadelphia Wilmington &amp; Baltimore Railroad</b>  <b>(east segment)</b>  <b>(railroad built ca. 1832; bridge 1930)</b> <b>Runs northeast from O'Donnell Street near South Haven Street to Bayviewrailyard</b>	B-5164	Eligible	A, C



**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
22	<i>Bon Secours Historic District</i> Roughly bounded by West Mulberry Street, North Monroe Street, West Baltimore Street, North Calverton Road, North Warwick Avenue, West Lexington Street, and North Bentalou Street	B-5117	Eligible	A, C
23	<i>American Ice Company Building</i> 2100 West Franklin Street (northeast corner of West Franklin Street and MARC Penn Line tracks)	B-1040	Eligible	A, C
24	<i>Monroe-Riggs Historic District</i> Roughly bounded by Penn Central tracks, Franklin Street, alley west of Fulton Avenue, and Riggs Street (adjoins Old West Baltimore Historic District)	B-5118	Eligible	A, C
25	<i>Franklin Square Historic District</i> Bounded by Mulberry, North Carey, West Baltimore, and Monroe Streets	B-3610	Listed	A, C
26	<i>Harlem Park Historic District</i> West Lanvale Street to the north, North Fremont Avenue to the east, West Franklin Street to the south, and North Monroe Street to the west (except for portion between Lanvale, North Calhoun Street, Edmondson Avenue, and North Gilmore Street)	B-1320	Eligible	A, C
27	<i>Old West Baltimore Historic District</i> Roughly bounded by North Avenue, Madison Avenue, Dolphin Street, Hoffman Street, Fremont Avenue, Franklin Street, and Fulton Avenue	B-1373	Listed	A, C
28	<i>Sarah Ann Row Houses</i> 1102-24 Sarah Ann Street	B-2427	Eligible	A



**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
29	<i>Hollins-Roundhouse Historic District</i> West Baltimore and Schroeder Streets, south on Schroeder to Lombard; west on Lombard to Carey, south to Pratt, east on Pratt to Hayes	B-5144	Listed	A, C
30	<i>Barre Circle Historic District</i> Roughly bounded by Boyd, Scott and Ramsey Streets, and South Martin Luther King, Jr. Boulevard	B-3701	Listed	A, C
31	<i>Fayette Street Methodist Episcopal Church</i> 745-51 West Fayette Street	B-2702	Eligible	A,C
32	<i>Poppleton Fire Station (Engine House No. 38)</i> 756-60 West Baltimore Street	B-3693	Listed	A, C
33	<i>St. Paul's Cemetery(Old St. Paul's Cemetery)</i> West Redwood Street to the north, West Lombard Street to the south, South Martin Luther King, Jr. Boulevard to the west, and the University of Maryland campus to the east	B-3686	Listed	A, C and Criteria Consideration D
34	<i>Fremont Building</i> 737 West Lombard Street	B3594	Eligible	C
35	<i>Gandy Belting Company Building</i> 726-34 West Pratt Street	B-4092	Listed	A, C
36	<i>Penn Street Sub-Station (Baltimore Gas and Electric Substation)</i> 700-26 West Pratt Street	B-1053	Eligible	A,C



**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
37	University of Maryland Medical School – Hospital District Buildings near intersections of South Greene with West Redwood, and West Lombard Streets	B-5128	Eligible ( <i>Dental and Pharmaceutical Building, Davidge Hall, UMD Law School, and Heiser, Rosenfeld, and Strauss Buildings are within this district and also individually listed or eligible</i> )	A
38	UMD-Bressler Memorial Laboratory Bldg. 29 South Greene Street	B-3589	Eligible ( <i>also within UMD Medical School Hospital District</i> )	A, C
39	Dental and Pharmaceutical Building ( <i>Medical-Technical Building, UMD Dept. of Preventative Medicine</i> ) 31 South Greene Street	B-2327	Eligible ( <i>also within UMD Medical School Hospital District</i> )	C
40	Davidge Hall, University of Maryland ( <i>College of Medicine of Maryland</i> ) 522 West Lombard Street	B-41	Listed ( <i>also NHL and within UMD Medical School Hospital District</i> )	A, C
41	University of Maryland Law School/University College/East Hall 520 West Lombard Street	B-2326	Eligible ( <i>also within UMD Medical School Hospital District</i> )	A



**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
42	<i>Gray Laboratory</i> 520 West Lombard Street	B-3583	Eligible ( <i>also within UMD Medical School Hospital District</i> )	A, C
43	<i>Loft Historic District South</i> Both sides of the 500 block of West Pratt Street bounded by South Greene and South Paca Streets, near the University of Maryland campus	B-4094	Listed ( <i>Sonneborn Building is within this district and individually listed</i> )	A, C
44	<i>Sonneborn Building</i> ( <i>Paca-Pratt Building</i> ) 110 South Paca Street	B-2330	Listed ( <i>also within Loft HD South</i> )	A, C
45	<i>Loft Historic District North</i> Centered on Paca, Redwood, and Eutaw Streets	B-4093	Listed	A, C
46	<i>Heiser, Rosenfeld, and Strauss Buildings (Inner Harbor Lofts I)</i> 32-34 South Paca Street, 36-38 South Paca Street, 40-42 South Paca Street	B-2325 B-2323 B-2324	Listed	A, C
47	<i>Emerson Bromo-Seltzer Tower</i> 312-18 West Lombard Street	B-38	Listed	A, B, C
48	<i>Wilkens-Robins Building</i> 308-14 West Pratt Street	B-3598	Listed	A, C
49	<i>Rombro Building</i> 22-24 South Howard Street	B-2371	Listed	C
50	<i>Howard Street Tunnel</i> Beneath Howard Street from Mt. Royal Station to Camden Station	B-79	Listed	A,C



**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
51	<b><i>Business and Government Historic District</i></b> Bounded by South and North Charles Street, East Lexington Street, East Saratoga Street, North and South Gay Street, North Frederick Street, East Baltimore Street, West Falls Avenue, Water Street, and East Lombard Street	B-3935	Listed ( <i>United States Custom House is within this district and also individually listed</i> )	A, C
52	<i>Alex Brown Building</i> 135 East Baltimore Street	B-117	Listed ( <i>also within the Business and Government Historic District</i> )	A,C
53	<i>Canton House</i> 300 Water Street	B-3705	Listed ( <i>also within the Business and Government Historic District</i> )	A, C
54	<i>Merchants' National Bank, site</i> ( <i>Baltimore Federal Inner Harbor; USF&amp;G</i> ) 301 Water Street, 37-39 South Street, 304-10 East Lombard Street	B-3687	Eligible ( <i>also within the Business and Government Historic District</i> )	A, C
55	<i>United States Custom House</i> 40 South Gay Street	B-36	Listed ( <i>also within the Business and Government Historic District</i> )	A, C
56	<i>United States Appraisers' Stores</i> ( <i>Appraisers' Stores Building</i> ) 103 South Gay Street	B-4496	Eligible ( <i>also within the Business and Government Historic District</i> )	A, C
57	<i>Candler Building</i> ( <i>The Coca-Cola Building</i> ) 700 East Pratt Street, 111 Market Place	B-1002	Eligible	C



**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
58	<i>Jonestown Historic District</i> 20 lots on ten acres located to the east of Jones Falls; the northern and southern most boundaries are East Lexington and Pratt Streets, with South Central Avenue to the east	B-2784	Eligible	A, C
59	<i>Star Spangled Banner Flag House</i> 844 East Pratt Street	B-15	Listed (also NHL and MHT easement property)	A
60	<i>Little Italy Historic District</i> Roughly bounded by South Central Avenue Historic District, Pratt Street, President Street, and Eastern Avenue	B-5121	Eligible	A, C
61	<i>Eastern Avenue Pumping Station</i> 751 Eastern Avenue	B-1047	Eligible	A, C
62	<i>President Street Station</i> (Philadelphia, Wilmington & Baltimore Railroad Station) President and Fleet Streets	B-3741	Listed	A
63	<i>South Central Avenue Historic District</i> Centering Central Avenue between Pratt and Fleet Streets	B-5058	Listed (Bagby Furniture Company Building is within this district and also individually listed)	A
64	<i>Bagby Furniture Company Building</i> 509-21 South Exeter Street	B-1011	Listed (also within the South Central Historic District)	A, B
65	<i>Harford Run Headwall and Drain</i> Under South Central Avenue from just north of Orleans Street to the Inner Harbor	B-5054	Eligible	A, C



**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
66	<i>Fells Point Historic District</i> (includes boundary increase) Roughly bounded on the north by Aliceanna Street, on the east by Wolfe Street, on the south by the Harbor, and on the west by Dallas Street	B-3714	Listed	A, C
67	<i>Douglass Place</i> 516-24 South Dallas Street	B-3694	Listed	A
68	<i>Public School No. 25</i> (Captain Henry Fleete School) 511 South Bond Street	B-3928	Listed	A, C
69	<i>Canton Historic District</i> District lying east of Fells Point Historic District, south of Eastern Avenue, and west of Conkling Street, extending south to the waterfront	B-3704	Listed	A, C
70	<i>Atlantic Southwestern Broom Company</i> 3500 Boston Street, 1301 South Baylis Street	B-992	Eligible (also located within the Canton Historic District); (for the Boston Street: Ponca to Conkling Alignment Study, 2008)	A, C
71	<i>Gunther Brewing Company</i> (Hamm's Brewing Company) 1200, 1211, and 1301 South Conkling Street, 3601, 3701 O'Donnell Street (south of O'Donnell Street, bounded by Haven Street to the east and Conkling Street to the west)	B-998	Listed	A
72	<i>The National Brewing Company</i> 3601-901 Dillon Street (south of Dillon Street, bounded by Conkling Street to the west, Haven Street to the east, and O'Donnell Street to the south)	B-996	Listed	A



**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
73	<b><i>Union Railroad</i></b>  The entire length of the line in Baltimore City from the northern portal of the Baltimore & Potomac Tunnel under the Northern Avenue Bridge to the southern terminus at Boston Street in Canton	B-5163	Eligible	A
74	<i>Highlandtown Pumping Station</i>  4118 Eastern Avenue (southeast corner of Eastern Avenue and South Haven Street, faces original Eastern Avenue alignment)	B-5171	Eligible	A, C
75	<i>Crown Cork &amp; Seal Highlandtown Plant Complex</i>  4401 Eastern Avenue (bounded by Philadelphia Wilmington & Baltimore Railroad tracks, O'Donnell Street, Eastern Avenue, and Greektown neighborhood; boundary includes Cambridge Iron & Metal Co. B-6165)	B-5172	Eligible	A, C
76	<i>B &amp; O Railroad – Philadelphia Branch</i>  Runs north from O'Donnell to Lombard Streets, then northeast to wye west of the Bayviewrailyard	B-5168	Eligible	A
77	<i>Greektown Historic District</i>  Generally bounded by Gough Street and Eastern Avenue (N), Oldham and South Quail Streets (E), Hudson Street and Foster Avenue (S), B & O Railroad (W)	B-1368	Eligible	A
78	<i>Johns Hopkins Bayview Hospital Campus</i>  4940, 5100, 5520, 5550 Eastern Avenue	B-5176	Eligible	A, C

Note: <sup>1</sup> **Bold** text indicates historic sites that would be affected by the Preferred Alternative.



## **Appendix J**

### **Section 4(f) Supporting Documents**

#### **Attachment 1**

### **Section 4(f) Resources Identified along the Preferred Alternative Study Corridor**



## Publicly-Owned Public Parks

**Table J1-1. Publicly-Owned Public Parks along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Resource	Park Area	Ownership	Description/Activities
1	Chadwick Elementary School  Located adjacent to the south of the western project terminus	13.38 acres	Baltimore County Board of Education	Parcel contains school buildings, recreational tennis courts and indoor recreational facilities available to the public outside of normal school hours
		6.0 acres	Baltimore County Department of Recreation and Parks	Parcel contains playing fields used by youth leagues and nearby residents outside of normal school hours
2	Gwynns Falls/ Leakin Park	1,200 acres	Baltimore City Department of Recreation and Parks	Contiguous parkland from the western boundary of Baltimore City, following the Gwynns Falls from Windsor Mill Road to Wilkens Avenue; includes woodlands, recreational trails, picnic areas and miniature steam trains in use from April through October
3	<b>Uplands Park</b>  <b>Located in the Uplands/Ten Hills neighborhoods of Baltimore City, on the south side of Edmondson Avenue between Nottingham Road and Uplands Parkway</b>	<b>33.62 acres</b>	<b>Baltimore City Department of Recreation and Parks</b>	<b>Wooded area located in the Upland/Ten Hills neighborhoods of Baltimore City, and bound by Edmondson Avenue to the north</b>
4	Edmondson-Westfield High School	26.04 acres	Baltimore City Board of Education	High school with publicly-owned and accessible playing fields and tennis courts



**Table J1-1. Publicly-Owned Public Parks along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Resource	Park Area	Ownership	Description/Activities
5	<p>Holocaust Memorial Park</p> <p>Located in the downtown area of Baltimore City, on the north side of East Lombard Street at South Gay Street</p>	2.3 acres	Baltimore City Department of Recreation and Parks	Memorial to the Holocaust
6	<p>Columbus Park</p> <p>Located in Baltimore City Inner Harbor area, at the northwest corner of Eastern Avenue and South President Street</p>	0.675 acre	Baltimore City Department of Recreation and Parks	Columbus monument, pedestrian plaza and walking paths
7	<p><b>Boston Street Pier Park</b></p> <p>Located in the Canton neighborhood of Baltimore City on the south side of Boston Street at South Lakewood Avenue</p>	0.75 acre	Baltimore City Department of Recreation and Parks	<b>Includes multi-use paths and a pedestrian bridge/fishing pier connecting to the Baltimore Waterfront Promenade</b>
8	<p><b>St. Casimir's Park</b></p> <p>Located in the Canton neighborhood of Baltimore City on the north side of Boston Street between South Lakewood and South Kenwood Avenues</p>	1.4 acres	Baltimore City Department of Recreation and Parks	<b>Includes open space, walking paths, and benches</b>
9	<p><b>Canton Waterfront Park</b></p> <p>Located in the Canton neighborhood of Baltimore City on the south side of Boston Street between South Linwood Avenue and South Clinton Streets</p>	7.0 acres	Baltimore City Department of Recreation and Parks	<b>Korean War Memorial, a water taxi landing, fishing and crabbing access, pedestrian and bicycle access, and a segment of the Baltimore Waterfront Promenade</b>



**Table J1-1. Publicly-Owned Public Parks along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Resource	Park Area	Ownership	Description/Activities
10	<b>DuBurns Arena (also known as Canton Park)</b>  <b>Located in the Canton neighborhood of Baltimore City on the north side of Boston Street at the intersection with Ellwood Avenue</b>	2.5 acres	<b>Baltimore City Department of Recreation and Parks</b>	<b>Hosts sports and social clubs for various games, as well as sporting events such as roller derby and boxing matches</b>
11	Canton Soccer Park  Located in the Canton neighborhood of Baltimore City on the north side of Boston Street between South East Avenue and South Clinton Street	2.89 acres	Baltimore City Department of Recreation and Parks	Located on the north side of Boston Street in Canton, includes playing fields accessible to the public and used by youth and club sports

Note: <sup>1</sup> **Bold** text indicates significant parks that would be affected by the Preferred Alternative.



## Historic Sites

**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
1	<i>Franklintown Road over Dead Run Bridge (SHA # B0096)</i> Franklintown Road over Dead Run located east of Security Boulevard, Woodlawn, Baltimore County	BA-2853	Eligible	C
2	<i>Franklintown Historic District</i> 5100-5201 North Franklintown Road, 1707-1809 North Forest Park Avenue, 5100 Hamilton Avenue, 5100 Fredwall Avenue	B-1316	Listed	A, C
3	<i>Ten Hills Historic District</i> Roughly bounded by Uplands Park, Edmondson Avenue, and Westgate Road	B-5124	Eligible	A, C
4	<b><i>St. William of York Catholic Church and School</i></b> <b>600 Cooks Lane</b>	<b>B-5100</b>	<b>Eligible</b>	<b>C, Criteria Consideration A</b>
5	<i>Hunting Ridge Historic District</i> Bounded by Edmondson Avenue, Nottingham Road, Leakin Park, Winans Way, and Glen Allen Drive	B-5125	Eligible (the Hunting Ridge Presbyterian Church is within this district and also individually eligible)	A, C
6	<b><i>St. Bartholomew's Episcopal Church</i></b> <b>4711 Edmondson Avenue</b>	<b>B-5105</b>	<b>Eligible</b>	<b>C, Criteria Consideration A</b>
7	<i>Roguel Heights-Ten Hills School (Public School #232, Thomas Jefferson Elementary School)</i> 605 Dryden Drive	B-4614	Eligible	A, C
8	<i>Hunting Ridge Presbyterian Church</i> 4640 Edmondson Avenue	B-5106	Eligible (also located within the Hunting Ridge District)	C, Criteria Consideration A
9	<i>Baltimore Fire Department Co. No. 53</i> 608 Swann Avenue	B-5126	Eligible	A, C



**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
10	<i>Edmondson Village Shopping Center</i> 4404 Edmondson Avenue	B-4223	Eligible	A, C
11	<i>Roguel Heights Historic District</i> Walnut Avenue and cross streets north of Edmondson Village Shopping Center	B-5108	Eligible	A, C
12	<i>Enoch Pratt Free Library, Edmondson Avenue Branch</i> 4330 Edmondson Avenue	B-1384	Eligible	A, C
13	<i>New Cathedral Cemetery</i> 4300 Old Frederick Road	B-5110	Eligible	C, Criteria Consideration D
14	<i>Edmondson Village Historic District</i> Edmondson Avenue to south, Walnut Avenue and North Woodington Road to west, North Hilton Street to east, and on north by Gelston Drive	B-5109	Eligible	A, C
15	<i>Allendale-West Mulberry Historic District</i> Bounded by Edmondson Avenue, Wildwood Parkway, New Cathedral Cemetery, West Mulberry Street, Gwynn Avenue, North Monastery Avenue, West Caton Avenue, North Culver Street, and North Hilton Street	B-5111	Eligible	A, C
16	<i>Keelty Daylight Rowhouse Historic District at Gwynns Falls</i> Two sections located on west and east sides of Gwynns Falls Park: (1) west section bordered by Normandy Avenue, Lyndhurst Street, Gelston Drive, North Hilton Street, West Mulberry Street, Edgewood Street, West Lexington Street, North Grantley Street, West Saratoga Street, and Allendale Street and (2) east section bordered by Gwynns Falls Trail, Ellicott Driveway, Braddish Avenue, West Lafayette Avenue, Poplar Grove Street, and Edmondson Avenue	B-1378	Eligible	A, C
17	<i>Gwynns Falls Park/Leakin Park</i> West Baltimore, Gwynns Falls Valley	B-4610	Eligible	A, B, C



**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
18	<i>Western Maryland Railroad-Tidewater Extension (CSX Tracks)</i>  A relatively short spur of track along the Gwynn Falls	B-1377	Eligible	A
19	<b><i>Greater Rosemont Historic District</i></b> <b>Bounded by West Franklin Street, North Franklintown Road, Poplar Grove Street, Edmondson Avenue, Gwynns Falls Park, North Rosedale Street, Ellicott Driveway, Ashburn Street, Prospect Street, Braddish Avenue, West Lafayette Avenue, West Lanvale Street, North Dukeland Street, Rayner Avenue, Whitmore Avenue, Winchester Street, North Bentalou Street, CSX tracks, Riggs Avenue, and the Amtrak Northeast Corridor (historically the Baltimore &amp; Potomac Railroad)</b>	B-5112	Eligible	A, C
20	<b><i>Edmondson Avenue Historic District</i></b> <b>Bounded by West Franklin Street, North Franklintown Road, Edmondson Avenue, Evergreen Street, Rayner Avenue, Braddish Avenue, St. Peters Cemetery, North Bentalou Street, CSX tracks, Riggs Avenue, West Lafayette Avenue, and Spedden Street</b>	B-5187	Listed 12/27/2010	A, C
21	<b>Baltimore &amp; Potomac Railroad (Philadelphia, Baltimore &amp; Washington Railroad): Contributing Railroad Bridges (west segment)</b>  <b>(established 1872; tunnel [1872]; most other structures and buildings from early part of twentieth century)</b> <b>Between Baltimore City/Baltimore County line (in community of Violetville) at southwest to Baltimore's Pennsylvania Station at northeast (excluding station itself)</b> <b>and</b> <b>Philadelphia Wilmington &amp; Baltimore Railroad</b>  <b>(east segment)</b>  <b>(railroad built ca. 1832; bridge 1930)</b> <b>Runs northeast from O'Donnell Street near South Haven Street to Bayviewrailyard</b>	B-5164	Eligible	A, C



**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
22	<i>Bon Secours Historic District</i> Roughly bounded by West Mulberry Street, North Monroe Street, West Baltimore Street, North Calverton Road, North Warwick Avenue, West Lexington Street, and North Bentalou Street	B-5117	Eligible	A, C
23	<i>American Ice Company Building</i> 2100 West Franklin Street (northeast corner of West Franklin Street and MARC Penn Line tracks)	B-1040	Eligible	A, C
24	<i>Monroe-Riggs Historic District</i> Roughly bounded by Penn Central tracks, Franklin Street, alley west of Fulton Avenue, and Riggs Street (adjoins Old West Baltimore Historic District)	B-5118	Eligible	A, C
25	<i>Franklin Square Historic District</i> Bounded by Mulberry, North Carey, West Baltimore, and Monroe Streets	B-3610	Listed	A, C
26	<i>Harlem Park Historic District</i> West Lanvale Street to the north, North Fremont Avenue to the east, West Franklin Street to the south, and North Monroe Street to the west (except for portion between Lanvale, North Calhoun Street, Edmondson Avenue, and North Gilmore Street)	B-1320	Eligible	A, C
27	<i>Old West Baltimore Historic District</i> Roughly bounded by North Avenue, Madison Avenue, Dolphin Street, Hoffman Street, Fremont Avenue, Franklin Street, and Fulton Avenue	B-1373	Listed	A, C
28	<i>Sarah Ann Row Houses</i> 1102-24 Sarah Ann Street	B-2427	Eligible	A



**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
29	<i>Hollins-Roundhouse Historic District</i> West Baltimore and Schroeder Streets, south on Schroeder to Lombard; west on Lombard to Carey, south to Pratt, east on Pratt to Hayes	B-5144	Listed	A, C
30	<i>Barre Circle Historic District</i> Roughly bounded by Boyd, Scott and Ramsey Streets, and South Martin Luther King, Jr. Boulevard	B-3701	Listed	A, C
31	<i>Fayette Street Methodist Episcopal Church</i> 745-51 West Fayette Street	B-2702	Eligible	A,C
32	<i>Poppleton Fire Station (Engine House No. 38)</i> 756-60 West Baltimore Street	B-3693	Listed	A, C
33	<i>St. Paul's Cemetery(Old St. Paul's Cemetery)</i> West Redwood Street to the north, West Lombard Street to the south, South Martin Luther King, Jr. Boulevard to the west, and the University of Maryland campus to the east	B-3686	Listed	A, C and Criteria Consideration D
34	<i>Fremont Building</i> 737 West Lombard Street	B3594	Eligible	C
35	<i>Gandy Belting Company Building</i> 726-34 West Pratt Street	B-4092	Listed	A, C
36	<i>Penn Street Sub-Station (Baltimore Gas and Electric Substation)</i> 700-26 West Pratt Street	B-1053	Eligible	A,C



**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
37	University of Maryland Medical School – Hospital District Buildings near intersections of South Greene with West Redwood, and West Lombard Streets	B-5128	Eligible ( <i>Dental and Pharmaceutical Building, Davidge Hall, UMD Law School, and Heiser, Rosenfeld, and Strauss Buildings are within this district and also individually listed or eligible</i> )	A
38	UMD-Bressler Memorial Laboratory Bldg. 29 South Greene Street	B-3589	Eligible ( <i>also within UMD Medical School Hospital District</i> )	A, C
39	Dental and Pharmaceutical Building ( <i>Medical-Technical Building, UMD Dept. of Preventative Medicine</i> ) 31 South Greene Street	B-2327	Eligible ( <i>also within UMD Medical School Hospital District</i> )	C
40	Davidge Hall, University of Maryland ( <i>College of Medicine of Maryland</i> ) 522 West Lombard Street	B-41	Listed ( <i>also NHL and within UMD Medical School Hospital District</i> )	A, C
41	University of Maryland Law School/University College/East Hall 520 West Lombard Street	B-2326	Eligible ( <i>also within UMD Medical School Hospital District</i> )	A



**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
42	<i>Gray Laboratory</i> 520 West Lombard Street	B-3583	Eligible ( <i>also within UMD Medical School Hospital District</i> )	A, C
43	<i>Loft Historic District South</i> Both sides of the 500 block of West Pratt Street bounded by South Greene and South Paca Streets, near the University of Maryland campus	B-4094	Listed ( <i>Sonneborn Building is within this district and individually listed</i> )	A, C
44	<i>Sonneborn Building</i> ( <i>Paca-Pratt Building</i> ) 110 South Paca Street	B-2330	Listed ( <i>also within Loft HD South</i> )	A, C
45	<i>Loft Historic District North</i> Centered on Paca, Redwood, and Eutaw Streets	B-4093	Listed	A, C
46	<i>Heiser, Rosenfeld, and Strauss Buildings (Inner Harbor Lofts I)</i> 32-34 South Paca Street, 36-38 South Paca Street, 40-42 South Paca Street	B-2325 B-2323 B-2324	Listed	A, C
47	<i>Emerson Bromo-Seltzer Tower</i> 312-18 West Lombard Street	B-38	Listed	A, B, C
48	<i>Wilkens-Robins Building</i> 308-14 West Pratt Street	B-3598	Listed	A, C
49	<i>Rombro Building</i> 22-24 South Howard Street	B-2371	Listed	C
50	<i>Howard Street Tunnel</i> Beneath Howard Street from Mt. Royal Station to Camden Station	B-79	Listed	A,C



**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
51	<b><i>Business and Government Historic District</i></b> Bounded by South and North Charles Street, East Lexington Street, East Saratoga Street, North and South Gay Street, North Frederick Street, East Baltimore Street, West Falls Avenue, Water Street, and East Lombard Street	B-3935	Listed <i>(United States Custom House is within this district and also individually listed)</i>	A, C
52	<i>Alex Brown Building</i> 135 East Baltimore Street	B-117	Listed <i>(also within the Business and Government Historic District)</i>	A,C
53	<i>Canton House</i> 300 Water Street	B-3705	Listed <i>(also within the Business and Government Historic District)</i>	A, C
54	<i>Merchants' National Bank, site</i> <i>(Baltimore Federal Inner Harbor; USF&amp;G)</i> 301 Water Street, 37-39 South Street, 304-10 East Lombard Street	B-3687	Eligible <i>(also within the Business and Government Historic District)</i>	A, C
55	<i>United States Custom House</i> 40 South Gay Street	B-36	Listed <i>(also within the Business and Government Historic District)</i>	A, C
56	<i>United States Appraisers' Stores</i> <i>(Appraisers' Stores Building)</i> 103 South Gay Street	B-4496	Eligible <i>(also within the Business and Government Historic District)</i>	A, C
57	<i>Candler Building</i> <i>(The Coca-Cola Building)</i> 700 East Pratt Street, 111 Market Place	B-1002	Eligible	C



**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
58	<i>Jonestown Historic District</i> 20 lots on ten acres located to the east of Jones Falls; the northern and southern most boundaries are East Lexington and Pratt Streets, with South Central Avenue to the east	B-2784	Eligible	A, C
59	<i>Star Spangled Banner Flag House</i> 844 East Pratt Street	B-15	Listed (also NHL and MHT easement property)	A
60	<i>Little Italy Historic District</i> Roughly bounded by South Central Avenue Historic District, Pratt Street, President Street, and Eastern Avenue	B-5121	Eligible	A, C
61	<i>Eastern Avenue Pumping Station</i> 751 Eastern Avenue	B-1047	Eligible	A, C
62	<i>President Street Station</i> (Philadelphia, Wilmington & Baltimore Railroad Station) President and Fleet Streets	B-3741	Listed	A
63	<i>South Central Avenue Historic District</i> Centering Central Avenue between Pratt and Fleet Streets	B-5058	Listed (Bagby Furniture Company Building is within this district and also individually listed)	A
64	<i>Bagby Furniture Company Building</i> 509-21 South Exeter Street	B-1011	Listed (also within the South Central Historic District)	A, B
65	<i>Harford Run Headwall and Drain</i> Under South Central Avenue from just north of Orleans Street to the Inner Harbor	B-5054	Eligible	A, C



**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
66	<i>Fells Point Historic District</i> (includes boundary increase) Roughly bounded on the north by Aliceanna Street, on the east by Wolfe Street, on the south by the Harbor, and on the west by Dallas Street	B-3714	Listed	A, C
67	<i>Douglass Place</i> 516-24 South Dallas Street	B-3694	Listed	A
68	<i>Public School No. 25</i> (Captain Henry Fleete School) 511 South Bond Street	B-3928	Listed	A, C
69	<i>Canton Historic District</i> District lying east of Fells Point Historic District, south of Eastern Avenue, and west of Conkling Street, extending south to the waterfront	B-3704	Listed	A, C
70	<i>Atlantic Southwestern Broom Company</i> 3500 Boston Street, 1301 South Baylis Street	B-992	Eligible (also located within the Canton Historic District); (for the Boston Street: Ponca to Conkling Alignment Study, 2008)	A, C
71	<i>Gunther Brewing Company</i> (Hamm's Brewing Company) 1200, 1211, and 1301 South Conkling Street, 3601, 3701 O'Donnell Street (south of O'Donnell Street, bounded by Haven Street to the east and Conkling Street to the west)	B-998	Listed	A
72	<i>The National Brewing Company</i> 3601-901 Dillon Street (south of Dillon Street, bounded by Conkling Street to the west, Haven Street to the east, and O'Donnell Street to the south)	B-996	Listed	A



**Table J1-2. Historic Sites along the Red Line Preferred Alternative Study Corridor<sup>1</sup>**

#	Name/Location (Baltimore City Except Where Otherwise Noted)	MIHP#	NRHP Status	NRHP Criteria
73	<b><i>Union Railroad</i></b>  The entire length of the line in Baltimore City from the northern portal of the Baltimore & Potomac Tunnel under the Northern Avenue Bridge to the southern terminus at Boston Street in Canton	B-5163	Eligible	A
74	<i>Highlandtown Pumping Station</i>  4118 Eastern Avenue (southeast corner of Eastern Avenue and South Haven Street, faces original Eastern Avenue alignment)	B-5171	Eligible	A, C
75	<i>Crown Cork &amp; Seal Highlandtown Plant Complex</i>  4401 Eastern Avenue (bounded by Philadelphia Wilmington & Baltimore Railroad tracks, O'Donnell Street, Eastern Avenue, and Greektown neighborhood; boundary includes Cambridge Iron & Metal Co. B-6165)	B-5172	Eligible	A, C
76	<i>B &amp; O Railroad – Philadelphia Branch</i>  Runs north from O'Donnell to Lombard Streets, then northeast to wye west of the Bayviewrailyard	B-5168	Eligible	A
77	<i>Greektown Historic District</i>  Generally bounded by Gough Street and Eastern Avenue (N), Oldham and South Quail Streets (E), Hudson Street and Foster Avenue (S), B & O Railroad (W)	B-1368	Eligible	A
78	<i>Johns Hopkins Bayview Hospital Campus</i>  4940, 5100, 5520, 5550 Eastern Avenue	B-5176	Eligible	A, C

Note: <sup>1</sup> **Bold** text indicates historic sites that would be affected by the Preferred Alternative.



## **Attachment 2: Coordination with Officials with Jurisdiction and Section 106 Consulting Parties**



## Baltimore County Department of Recreation and Parks




**MARYLAND TRANSIT ADMINISTRATION**
**MARYLAND DEPARTMENT OF TRANSPORTATION**

Martin O'Malley, Governor • Anthony G. Brown, Lt. Governor  
Beverly K. Swaim-Staley, Secretary • Raligh T. Wells, Administrator

February 15, 2012

Mr. Barry F. Williams, Director  
Baltimore County Recreation and Parks  
105 W. Chesapeake Avenue, Suite 302  
Towson, Maryland 21204

Attn: Patrick McDougal

SUBJECT: Park and Recreation Properties, Section 4(f) Coordination

Dear Mr. Williams,

As part of the Baltimore Red Line Final Environmental Impact Statement (FEIS) study, the Maryland Transit Administration (MTA), on behalf of the Federal Transit Administration, must comply with Section 4(f) of the US Department of Transportation Act. Section 4(f) protects publicly owned land of public parks, recreation areas, wildlife and waterfowl refuges, and historic sites.

Based on our preliminary review, we are not aware of the presence of any parks or recreational properties administered by Baltimore County Recreation and Parks within the vicinity of the Red Line Preferred Alternative alignment. We would like to confirm our understanding is correct.

We would appreciate any information of which you may be aware regarding park and recreational properties adjacent to the project corridor (within 1,000 feet). Attached is a map of the Preferred Alternative alignment. Of particular interest are the following:

- The location of park and recreational properties within 1,000 feet of the Preferred Alternative alignment;
- Planned park and/or recreational lands;
- Information regarding activities, features and attributes of any identified park and recreational properties;
- Recreational activities associated with school playing fields; and
- Lands that may have been acquired using funds from the Land and Water Conservation Fund Act or Open Space funds.

Your response to this inquiry would be appreciated by March 2, 2012. If you have any questions or require any additional information regarding this request, please contact Ray Moravec, Red Line NEPA Coordinator, at 410-494-9093 or via email at [RMoravec@wallacemontgomery.com](mailto:RMoravec@wallacemontgomery.com). Thank you for your assistance with this project.

Sincerely,

John Newton, Manager  
Environmental Planning Division  
Office of Planning

Attachment(s): Red Line Preferred Alternative Corridor Map

Cc: Mr. Ray Moravec, Wallace Montgomery

6 Saint Paul Street • Baltimore, Maryland 21202-1614 • TTY 410-539-3497 • Toll Free 1-866-743-3682



Zimbra

<https://webmail.rkk.com/zimbra/h/printmessage?id=17736>

Zimbra

<https://webmail.rkk.com/zimbra/h/printmessage?id=17736>

Zimbra

smahoney@rkk.com

**Re: Red Line - Chadwick Elementary School**

**From :** Patrick McDougall <pmcdougall@baltimorecountymd.gov> Fri, May 25, 2012 07:52 AM  
**To :** Sheila Mahoney <smahoney@rkk.com>  
**Subject :** Re: Red Line - Chadwick Elementary School

That is correct. Indoor and outdoor recreation facilities are not available to the public during school hours.

>>> Sheila Mahoney <smahoney@rkk.com> 05/24/12 4:37 PM >>>  
 Hello Pat,

Thanks for explaining. In order to establish major/ primary use in terms of Section 4(f), is it correct that neither parcel is open to the general public for recreation during normal operating hours, and is used as a public recreational facility only outside of school hours?

Thank you,

Sheila

**From:** "Patrick McDougall" <pmcdougall@baltimorecountymd.gov>  
**To:** "Sheila Mahoney" <smahoney@rkk.com>  
**Sent:** Thursday, May 24, 2012 4:05:50 PM  
**Subject:** Re: Red Line - Chadwick Elementary School

Not exactly... technically speaking it's all one school rec center with indoor and outdoor rec facilities dedicated to both education and recreation. The ownership split is inconsequential at school rec centers... in some cases there is no County-owned portion, yet the site will be operated and used in the same manner as a site that is split 50-50 ownership-wise. It's a concept that's fairly unique to Baltimore County, and can be difficult to fathom and perhaps tricky in situations such as what you're dealing with. Give me a call if you need to talk it through.

>>> Sheila Mahoney <smahoney@rkk.com> 05/24/12 3:44 PM >>>  
 Pat,

Is the primary use information regarding each parcel correct?

1 of 3

5/25/2012 10:38 AM

Thanks,

Sheila

**From:** "Patrick McDougall" <pmcdougall@baltimorecountymd.gov>  
**To:** "Sheila Mahoney" <smahoney@rkk.com>  
**Sent:** Thursday, May 24, 2012 3:40:03 PM  
**Subject:** Re: Red Line - Chadwick Elementary School

The information you have on land ownership is correct. The two properties combined form a public school recreation center operated as a dual-use educational and recreational site under the joint use agreement between Baltimore County Public Schools/the Board of Education and Baltimore County (Recreation and Parks). Please let me know if you have any further questions or needs.

Pat

Patrick McDougall, Planner  
 Baltimore County Recreation and Parks  
 105 W. Chesapeake Avenue, Suite 302  
 Towson, Maryland 21204  
 (410) 887-3822 Fax (410) 825-3305

pmcdougall@baltimorecountymd.gov>>> Sheila Mahoney <smahoney@rkk.com> 05/24/12 2:43 PM >>>

Hi Pat,

To confirm our previous conversations regarding Chadwick Elementary School:

Baltimore County Recreation and Parks owns and operates the western parcel. This parcel is primarily used for recreation:

tax account #01-[0102000705](#)  
 map 95, grid 5, parcel 270  
 6.003 acres  
 deed reference: 4527/343

Baltimore County Board of Education owns and operates the eastern parcel. This parcel is primarily used for an elementary school, but also hosts recreational activities:

tax account #01-[1600012571](#)  
 map 94, grid 5, parcel 230  
 13.370 acres  
 deed reference: 04261/ 00023

2 of 3

5/25/2012 10:38 AM

Please let me know if you have any questions.

Thanks,

Sheila



## Baltimore City Department of Recreation and Parks



**MARYLAND TRANSIT ADMINISTRATION**  
**MARYLAND DEPARTMENT OF TRANSPORTATION**  
 Martin O'Malley, Governor • Anthony G. Brown, Lt. Governor  
 Beverley K. Swalm-Staley, Secretary • Ralign T. Wells, Administrator

February 16, 2012

Mr. Gregory Bayor, Director  
 Baltimore City Recreation and Parks  
 3001 East Drive  
 Baltimore, MD 21217

SUBJECT: Park and Recreation Properties, Section 4(f) Coordination

Dear Mr. Bayor,

As part of the Baltimore Red Line Final Environmental Impact Statement (FEIS) study, the Maryland Transit Administration (MTA), on behalf of the Federal Transit Administration, must comply with Section 4(f) of the US Department of Transportation Act. Section 4(f) protects publicly owned land of public parks, recreation areas, wildlife and waterfowl refuges, and historic sites.

Attached is a map of the Preferred Alternative alignment. Based on preliminary review, we are aware of the presence of the following parks and/or recreational properties administered by Recreation and Parks within the vicinity of the Red Line Preferred Alternative alignment: Gwynns Falls/Leakin Park; Uplands Park; St. Casimir's Park; and Canton Waterfront Park.

We would appreciate any other information regarding park and recreational properties adjacent to the project corridor (within 1,000 feet). Of particular interest for any park or recreational properties you identify are the following:

- The location of park and recreational properties within 1,000 feet of the Preferred Alternative alignment;
- Planned park and/or recreational lands;
- Information regarding activities, features and attributes of any identified park and recreational properties;
- Recreational activities associated with school playing fields; and
- Lands that may have been acquired using funds from the Land and Water Conservation Fund Act or Open Space funds.

Your response to this inquiry would be appreciated by March 2, 2012. If you have any questions or require any additional information regarding this request, please contact Ray Moravec, Red

Line NEPA Coordinator, at 410-494-9093 or via email at [RMoravec@wallacemontgomery.com](mailto:RMoravec@wallacemontgomery.com). Thank you for your assistance with this project.

Sincerely,

John Newton  
 Environmental Manager  
 Maryland Transit Administration

Attachment(s): Red Line Preferred Alternative Corridor Map

Cc: Mr. Ray Moravec, Wallace Montgomery

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smahoney@rkk.com

**RE: Baltimore Red Line - Park Parcels**

**From :** Kate Brower <Kate.Brower@baltimorecity.gov> Wed, Mar 14, 2012 03:23 PM  
**Subject :** RE: Baltimore Red Line - Park Parcels 📧 Red Line  
**To :** Sheila Mahoney <smahoney@rkk.com>  
**Cc :** Mary Ann Mason <masonm@pbworld.com>, Erron Ramsey <eramsey@rkk.com>, Eric Almquist <ealmquist@rkk.com>, Gennady Schwartz ( BCRP ) <Gennady.Schwartz@baltimorecity.GOV>, Valerie McGuire (BCRP) <Valerie.McGuire@baltimorecity.gov>

Dear Sheila,

Thank you for the maps of the Red Line Preferred Alternative alignment with the BCRP properties called out along the route. The properties you have identified as under the jurisdiction of BCRP are correct.

I have two comments/observations with regard to the intended design of the project.

1. Map 6. Station stop at Boston Street Pier Park (Parcel 1902E-001) – Is the stop going to be located in the roadbed itself? It would be advantageous to have a welcoming and safe street pedestrian crossing that is convenient for people who will be accessing and entering the park from the red line station as well as for those people who are not taking the red line but need to cross the street to access the park. It would be great to have the park identified and promoted as part of the station stop name as well. BCRP would like to opportunity to review the station stop design when available, to ensure that park access is facilitated.
2. Map 7. Canton Waterfront Park (Parcel 1902F-001B) - Some park users bring their boats to the Canton Waterfront park to use the pier. They bring the boat on a truck and back into the park from the roadway. Will this still be possible once the Red Line tracks are constructed?

Thanks for the opportunity to comment on this exciting project! I look forward to hearing from you.

Sincerely,  
 Kate Brower

Katherine Brower  
 Urban Planner  
 Baltimore City Dept. of Recreation and Parks | Capital Development  
 2600 Madison Avenue | Baltimore, MD 21217  
 Ph. 410.396.0803 | Fax. 410. 396.0928

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**From:** Sheila Mahoney [mailto:smahoney@rkk.com]  
**Sent:** Monday, March 12, 2012 5:32 PM  
**To:** Brower, Kate  
**Cc:** Mary Ann Mason; Erron Ramsey; Eric Almquist  
**Subject:** Baltimore Red Line - Park Parcels

Ms. Brower,

Per our discussion, please find mapping of the Red Line Preferred Alternative alignment through Baltimore City. Parcels adjacent to the Preferred Alternative alignment that are known to be owned or managed by the Department of Recreation and Parks have been labeled for your information. Ownership/jurisdiction of parcels was determined through Baltimore City GIS data, property database search, and in some instances, coordination with other Baltimore City agency representatives.

The mapping legend is as follows:

- the solid red line represents segments of surface track;
- the hatched red line indicates underground segments; and
- labeled red circles identify the locations of passenger stations.

Based on our research, following are known park and recreation properties located along the Preferred Alternative alignment.

Map 1

- Gwynns Falls/Leakin Park (7900H-001)
- Uplands Park (8030F-001A)

Map 2

- Edmondson-Westside High School (2550-004)
- Gwynns Falls/Leakin Park (2528-001, 2222-002, 2475-001, 2222-001)

Map 3

No known resources adjacent to surface line corridor or passenger stations.

Map 4

1 of 4

5/25/2012 10:42 AM

2 of 4

5/25/2012 10:42 AM

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No known resources adjacent to surface line corridor or passenger stations.

Map 5

No known resources adjacent to surface line corridor or passenger stations.

Map 6

- Boston Street Pier Park (1902E-001)
- St. Casimir's Park (1889-019)

Map 7

- Canton Waterfront Park (1902F-001, 1902F-001B)
- Canton Park/DuBurns Arena (1898-019)
- Canton Soccer Park (1900-001)

Map 8

No known resources adjacent to surface line corridor or passenger stations.

Map 9

No known resources adjacent to surface line corridor or passenger stations.

Thank you for your review. At this time, the team cordially requests any additional information on Recreation and Parks parcels we may not have captured in this mapping, or confirmation that all park parcels have been identified.

Please feel free to call with any questions or if you would like to discuss.

Thank you,

Sheila

---

**SHEILA MAHONEY**  
Environmental Planner

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81 Mosher Street  
Baltimore, MD 21217

410.728.2900 P  
410.462.9185 D  
410.728.2834 F  
[www.rkk.com](http://www.rkk.com)



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smahoney@rkk.com

**RE: Baltimore Red Line - Park Parcels**

**From :** Kate Brower <Kate.Brower@baltimorecity.gov> Tue, Apr 24, 2012 01:37 PM  
**Subject :** RE: Baltimore Red Line - Park Parcels  
**To :** Sheila Mahoney <smahoney@rkk.com>  
**Cc :** Mary Ann Mason <masonm@pbworld.com>, Erron Ramsey <eramsey@rkk.com>, Eric Almquist <ealmquist@rkk.com>, Gennady Schwartz ( BCRP ) <Gennady.Schwartz@baltimorecity.GOV>, Valerie McGuire (BCRP) <Valerie.McGuire@baltimorecity.gov>, 1265A@pbworld.com

Sheila,

I have reviewed the list of properties you identified in March (at end of this email trail- March 12, 2012). The following properties have been acquired with POS funds:

Block/Lot	Funds
222/001	POS/ISTEA (Gwynns Falls Trail)
2222/002	POS/ISTEA (Gwynns Falls Trail)
2475A/001	POS/ISTEA (Gwynns Falls Trail)
1889/019	NIP (Neighborhood Improvement Program) Program no longer in existence. Not sure what the restrictions are with these funds.
1902F/001	POS
1902F/001B	POS
1898/019	POS

Thanks.  
 Kate

Katherine Brower  
 Urban Planner  
 Baltimore City Dept. of Recreation and Parks | Capital Development  
 2600 Madison Avenue | Baltimore, MD 21217  
 Ph. 410.396.0803 | Fax. 410. 396.0928

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[www.twitter.com/recnparks](https://www.twitter.com/recnparks)

**From:** Sheila Mahoney [mailto:smahoney@rkk.com]  
**Sent:** Tuesday, April 24, 2012 12:31 PM  
**To:** Brower, Kate  
**Cc:** Mary Ann Mason; Erron Ramsey; Eric Almquist; Schwartz, Gennady ( BCRP ); McGuire, Valerie (BCRP); 1265A@pbworld.com  
**Subject:** Re: Baltimore Red Line - Park Parcels

Kate,

Thank you for identifying this morning who should receive MTA Red Line letter correspondence to Baltimore City Department of Recreation and Parks.

As discussed, based on coordination with Carrie Lhotsky of Maryland Department of Natural Resources in March, Program Open Space funds were used in the acquisition of 9.128 acres at Boston Street and Clinton Street. Apparently the DNR database does not include parcel information.

The parcels with frontage to the Red Line Preferred Alternative alignment along Boston Street include 1902F-001 (6.99 acres) and 1902F-001B (0.970 acres). Please provide written confirmation whether these parcels have been acquired with Program Open Space funds.

If you need to contact DNR, Carrie's information is as follows.

Carrie Lhotsky  
 Land Acquisition and Planning  
 Department of Natural Resources  
 Office: 410-260-8446  
[CLHOTSKY@dnr.state.md.us](mailto:CLHOTSKY@dnr.state.md.us)

Thank you,

Sheila

**SHEILA MAHONEY**  
 Environmental Planner

RK&K  
 81 Mosher Street  
 Baltimore, MD 21217

2 of 6

5/25/2012 10:44 AM

1 of 6

5/25/2012 10:44 AM

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smahoney@rkk.com

**FW: Red Line Follow Up**

**From :** Kate Brower <KBrower@baltimorecity.gov> Thu, May 17, 2012 10:24 AM  
**Subject :** FW: Red Line Follow Up 1 attachment  
**To :** Sheila Mahoney (smahoney@rkk.com) <smahoney@rkk.com>  
**Cc :** Mary Ann Mason (masonm@pbworld.com) <masonm@pbworld.com>, Stephen L. Plano (plano@pbworld.com) <plano@pbworld.com>, 1265a@pbworld.com, Eric Almquist (ealmquist@rkk.com) <ealmquist@rkk.com>

Sheila,

These plazas are not maintained by BCRP. They are likely maintained by the University of Maryland or the Dept. of Transportation.

Kate

Katherine Brower  
 Urban Planner  
 Baltimore City Dept. of Recreation and Parks | Capital Development  
 2600 Madison Avenue | Baltimore, MD 21217  
 Ph. 410.396.0803 | Fax. 410. 396.0928

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[www.twitter.com/recnparks](https://www.twitter.com/recnparks)

**From:** Brower, Kate  
**Sent:** Tuesday, May 15, 2012 4:36 PM  
**To:** 'Sheila Mahoney'  
**Cc:** Mary Ann Mason; Stephen L. Plano; 1265a@pbworld.com; Eric Almquist  
**Subject:** RE: Red Line Follow Up

Sheila,

Zimbra

smahoney@rkk.com

**RE: Red Line Follow Up**

**From :** Kate Brower <KBrower@baltimorecity.gov> Tue, May 15, 2012 04:36 PM  
**Subject :** RE: Red Line Follow Up  
**To :** Sheila Mahoney <smahoney@rkk.com>  
**Cc :** Mary Ann Mason <masonm@pbworld.com>, Stephen L. Plano <plano@pbworld.com>, 1265a@pbworld.com, Eric Almquist <ealmquist@rkk.com>

Sheila,

These plazas are part of the highway right of way – and they should be under the jurisdiction of DOT-Highways. I do not know who maintains them and will have to check to see if we maintain them tomorrow.

Kate

**From:** Sheila Mahoney [mailto:smahoney@rkk.com]  
**Sent:** Tuesday, May 15, 2012 1:45 PM  
**To:** Brower, Kate  
**Cc:** Mary Ann Mason; Stephen L. Plano; 1265a@pbworld.com; Eric Almquist  
**Subject:** Red Line Follow Up

Kate,

As discussed a few weeks ago, attached is a map of two pedestrian plazas located on the west corner of W Baltimore Street and Martin Luther King Jr Boulevard. Can you verify that these parcels are not under the jurisdiction of the Department of Recreation and Parks?

Also, thank you for your assistance with identifying the Program Open Space projects along the corridor and coordinating with DNR. Carrie Lhotsky was able to confirm local POS funds were used for those projects based on the information you provided.

Thank you,

Sheila

**SHEILA MAHONEY**

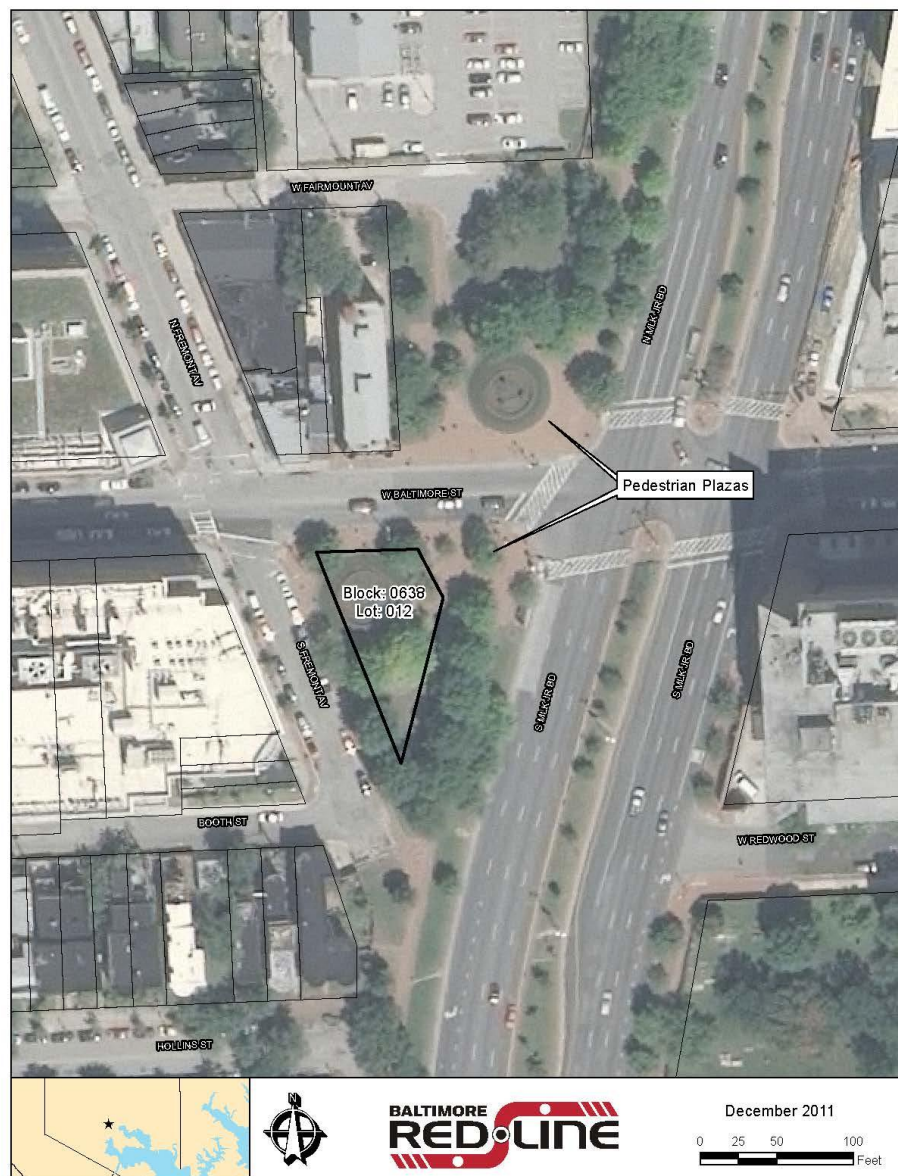
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## Maryland Department of Natural Resources



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smahoney@rkk.com

**RE: Baltimore Red Line Project - Assistance Requested**

**From :** Carrie Lhotsky <CLHOTSKY@dnr.state.md.us> Wed, Feb 22, 2012 02:44 PM  
**Subject :** RE: Baltimore Red Line Project - Assistance Requested  
**To :** 'Sheila Mahoney' <smahoney@rkk.com>

Hello Sheila: Please see answers below in blue. Please let me know if you need further information or if it is possible these parks go by other names.

\*\*\*\*\*

Carrie Lhotsky  
 Land Acquisition and Planning  
 Department of Natural Resources  
 Office: 410-260-8446  
 Fax: 410-260-8404  
[www.dnr.state.md.us](http://www.dnr.state.md.us)

**From:** Sheila Mahoney [mailto:smahoney@rkk.com]  
**Sent:** Tuesday, February 21, 2012 3:04 PM  
**To:** Lhotsky, Carrie  
**Subject:** Baltimore Red Line Project - Assistance Requested

Hello Ms. Lhotsky,

I am part of the consultant team working on evaluating potential impacts to parks and recreation properties for MTA's Baltimore Red Line project. MTA has initiated coordination with the Baltimore County and City Departments of Recreation and Parks for detailed information regarding park and recreation resources, and is currently awaiting their responses.

In the meantime, are you available to identify and briefly discuss whether local Program Open Space funds were used to acquire or improve the following parks/recreation areas in Baltimore County and Baltimore City?

Baltimore County

--Chadwick Elementary School baseball fields - 1918 Winder Road Baltimore 21244  
 -- no record of this project

Baltimore City

--Edmondson High School playing fields - 501 N Athol Avenue Baltimore 21229 -- no

record of this project

--Gwynns Falls/Leaking Park - between North Franklinton Road and Cooks Lane - parcel 7900H-001 only. 3.27 acres were purchased at 810 Swann Avenue; 5 acres were purchased at 4901 Windsor Mill Road  
 --Gwynns Falls Park - the parcels under the Route 40/Edmonson Avenue Bridge crossing only. -- do you have a specific address?  
 --Canton Neighborhood - parks along Boston Street  
 -Boston Street Pier Park -- no record of this project  
 -St. Casimir's Park- no record of this project  
 -Canton Waterfront Park -- acquisition of 9.128 on Boston and Clinton Street  
 -Canton Park/Du Burns Arena -- no record of acquisition  
 -Canton Soccer Park -- no record of this project

Thank you for your time.

Sheila

**SHEILA MAHONEY**  
Environmental Planner

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**From:** "Carrie Lhotsky" <CLHOTSKY@dnr.state.md.us>  
**To:** "Sheila Mahoney" <smahoney@rkk.com>  
**Sent:** Friday, May 4, 2012 2:55:57 PM  
**Subject:** RE: Baltimore Red Line Project - Assistance Requested

Hi Sheila: Attached, please find the list of acquisition projects in our database. Did Kate confirm the below projects as POS funded? If so, I can get a list of POS numbers from her and verify. As we discussed earlier, we don't necessarily identify projects by address so it would be extremely difficult to identify on my end.

From: Sheila Mahoney [smahoney@rkk.com]  
 Sent: Tuesday, May 01, 2012 11:58 AM  
 To: Lhotsky, Carrie  
 Cc: Eric Almquist; 1265a@pbworld.com; Erron Ramsey; Mary Ann Mason; Stephen L. Plano  
 Subject: Re: Baltimore Red Line Project - Assistance Requested

Carrie,

To follow-up to the voice mail I left, after coordinating with Kate Brower with Baltimore City Recreation and Parks, it seems there are a greater number of POS properties along the Red Line corridor than discussed in late February. Are you available to briefly discuss/confirm which of the following POS projects utilized Land and Water Conservation Funds?

Block/Lot	Funds
222/001	POS/ISTEA (Gwynns Falls Trail) - adjacent to the Gwynns Falls under Edmonson Avenue Bridge
2222/002	POS/ISTEA (Gwynns Falls Trail) - adjacent to the Gwynns Falls under Edmonson Avenue Bridge
2475A/001	POS/ISTEA (Gwynns Falls Trail) - adjacent to the Gwynns Falls under Edmonson Avenue Bridge
1902F/001	POS (Canton Waterfront Park) - Boston and Clinton Streets
1902F/001B	POS (Canton Waterfront Park) - Boston and Clinton Streets
1898/019	POS (Du Burns Arena) - Boston St and Ellwood Ave

Thank you,

Sheila

SHEILA MAHONEY  
 Environmental Planner

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2 of 5

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smahoney@rkk.com

**RE: Baltimore Red Line Project - Assistance Requested**

**From :** Carrie Lhotsky <CLHOTSKY@dnr.state.md.us> Fri, May 04, 2012 02:55 PM  
**Subject :** RE: Baltimore Red Line Project - Assistance Requested 1 attachment  
**To :** Sheila Mahoney <smahoney@rkk.com>

Hi Sheila: Attached, please find the list of acquisition proojects in our database. Did Kate confirm the below projects as POS funded? If so, I can get a list of POS numbers from her and verify. As we discussed earlier, we don't necessarily identify projects by address so it would be extremely difficult to identify on my end.

From: Sheila Mahoney [smahoney@rkk.com]  
 Sent: Tuesday, May 01, 2012 11:58 AM  
 To: Lhotsky, Carrie  
 Cc: Eric Almquist; 1265a@pbworld.com; Erron Ramsey; Mary Ann Mason; Stephen L. Plano  
 Subject: Re: Baltimore Red Line Project - Assistance Requested

Carrie,

To follow-up to the voice mail I left, after coordinating with Kate Brower with Baltimore City Recreation and Parks, it seems there are a greater number of POS properties along the Red Line corridor than discussed in late February. Are you available to briefly discuss/confirm which of the following POS projects utilized Land and Water Conservation Funds?

Block/Lot	Funds
222/001	POS/ISTEA (Gwynns Falls Trail) - adjacent to the Gwynns Falls under Edmonson Avenue Bridge
2222/002	POS/ISTEA (Gwynns Falls Trail) - adjacent to the Gwynns Falls under Edmonson Avenue Bridge
2475A/001	POS/ISTEA (Gwynns Falls Trail) - adjacent to the Gwynns Falls under Edmonson Avenue Bridge
1902F/001	POS (Canton Waterfront Park) - Boston and Clinton Streets
1902F/001B	POS (Canton Waterfront Park) - Boston and Clinton Streets
1898/019	POS (Du Burns Arena) - Boston St and Ellwood Ave

Thank you,

Sheila

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smahoney@rkk.com

**RE: Baltimore Red Line Project - Assistance Requested**

**From :** Carrie Lhotsky <CLHOTSKY@dnr.state.md.us> Tue, May 01, 2012 01:56 PM  
**Subject :** RE: Baltimore Red Line Project - Assistance Requested  
**To :** 'Sheila Mahoney' <smahoney@rkk.com>  
**Cc :** Eric Almquist <ealmquist@rkk.com>, 1265a@pbworld.com, Erron Ramsey <eramsey@rkk.com>, Mary Ann Mason <masonm@pbworld.com>, Stephen L. Plano <plano@pbworld.com>

Hi Sheila: Of course. Let me email you a list of projects we have in the database. Like I said when we spoke, without project names – it is often hard to know for certain. With the report I am generating, it may be easier for you to go through and identify based on address. I should be able to get the report to you this week.

\*\*\*\*\*

Carrie Lhotsky  
 Land Acquisition and Planning  
 Department of Natural Resources  
 Office: 410-260-8446  
 Fax: 410-260-8404  
[www.dnr.state.md.us](http://www.dnr.state.md.us)

**From:** Sheila Mahoney [mailto:smahoney@rkk.com]  
**Sent:** Tuesday, May 01, 2012 11:59 AM  
**To:** Lhotsky, Carrie  
**Cc:** Eric Almquist; 1265a@pbworld.com; Erron Ramsey; Mary Ann Mason; Stephen L. Plano  
**Subject:** Re: Baltimore Red Line Project - Assistance Requested

Carrie,

To follow-up to the voice mail I left, after coordinating with Kate Brower with Baltimore City Recreation and Parks, it seems there are a greater number of POS properties along the Red Line corridor than discussed in late February. Are you available to briefly discuss/confirm which of the following POS projects utilized Land and Water Conservation Funds?

Block/Lot	Funds
222/001	POS/ISTEA (Gwynns Falls Trail) - adjacent to the Gwynns Falls under Edmonson Avenue Bridge

2222/002	POS/ISTEA (Gwynns Falls Trail) - adjacent to the Gwynns Falls under Edmonson Avenue Bridge
2475A/001	POS/ISTEA (Gwynns Falls Trail) - adjacent to the Gwynns Falls under Edmonson Avenue Bridge
1902F/001	POS (Canton Waterfront Park) - Boston and Clinton Streets
1902F/001B	POS (Canton Waterfront Park) - Boston and Clinton Streets
1898/019	POS (Du Burns Arena) - Boston St and Ellwood Ave

Thank you,

Sheila

**SHEILA MAHONEY**  
 Environmental Planner

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 81 Mosher Street  
 Baltimore, MD 21217

410.728.2900 P  
 410.462.9185 D  
 410.728.2834 F  
[www.rkk.com](http://www.rkk.com)

**From:** "Carrie Lhotsky" <CLHOTSKY@dnr.state.md.us>  
**To:** "Sheila Mahoney" <smahoney@rkk.com>  
**Sent:** Wednesday, February 22, 2012 2:44:05 PM  
**Subject:** RE: Baltimore Red Line Project - Assistance Requested

Hello Sheila: Please see answers below in blue. Please let me know if you need further information or if it is possible these parks go by other names.

\*\*\*\*\*

Carrie Lhotsky  
 Land Acquisition and Planning  
 Department of Natural Resources  
 Office: 410-260-8446  
 Fax: 410-260-8404  
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smahoney@rkk.com

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**RE: Baltimore Red Line Project - Assistance Requested**

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**From :** Carrie Lhotsky <CLHOTSKY@dnr.state.md.us> Mon, May 14, 2012 10:28 AM  
**Subject :** RE: Baltimore Red Line Project - Assistance Requested  
**To :** 'Sheila Mahoney' <smahoney@rkk.com>, 1265a@pbworld.com  
**Cc :** Mary Ann Mason <masonm@pbworld.com>, Eric Almquist <ealmquist@rkk.com>

Hi Sheila: Sorry for the delayed response. Based on our records, the funding source for these projects is POS Local Side. For temporary construction, please supply a letter with location description of construction and estimated time frame.

Thank you,  
Carrie

\*\*\*\*\*

Carrie Lhotsky  
Land Acquisition and Planning  
Department of Natural Resources  
Office: 410-260-8446  
Fax: 410-260-8404  
[www.dnr.state.md.us](http://www.dnr.state.md.us)

---

**From:** Sheila Mahoney [mailto:smahoney@rkk.com]  
**Sent:** Friday, May 04, 2012 3:14 PM  
**To:** Lhotsky, Carrie; 1265a@pbworld.com  
**Cc:** Mary Ann Mason; Eric Almquist  
**Subject:** Re: Baltimore Red Line Project - Assistance Requested

Hi Carrie,

Thanks so much for your response. Yes the projects below were sent by Kate. Unfortunately, I am not able to open the file; are you able to send it in another format?

Thank you,

Sheila

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1 of 5

5/25/2012 10:51 AM

## Advisory Council on Historic Preservation





U.S. Department  
of Transportation  
**Federal Transit  
Administration**

NOV 6 2012

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Columbia, Maryland,  
Pennsylvania, Virginia,  
West Virginia

1780 Market Street  
Suite 500  
Philadelphia, PA 19103-4124  
215-656-7100  
215-656-7260 (fax)

Ms. Louise Brodnitz  
Advisory Council on Historic Preservation  
1100 Pennsylvania Avenue, NW, Suite 803  
Old Post Office Building  
Washington, DC 20004

Re: **Notification of Adverse Effect**  
**Red Line Project, Baltimore City and Baltimore County, Maryland**

Dear Ms. Brodnitz:

The Maryland Transit Administration (MTA), in coordination with the Federal Transit Administration (FTA) as the lead Federal agency, is currently preparing a Final Environmental Impact Statement (FEIS) to identify and document potential environmental, socioeconomic, and cultural resource impacts related to the implementation of a new light rail transit alignment in Baltimore County and Baltimore City, Maryland.

In accordance with 36 CFR 800.6, the FTA wishes to notify you that the subject project will have an adverse effect on historic properties previously listed in or determined to be eligible for the National Register of Historic Places (NRHP). We are requesting that the Advisory Council on Historic Preservation (ACHP) review the attached information to this letter for the purpose of determining if the ACHP wishes to join the consultation process for this undertaking. If the ACHP chooses to participate, we would appreciate a response within 15 days of receipt of this letter.

The 'INTRODUCTION' document enclosed includes a description of the proposed project; the steps undertaken to identify historic properties within the project's Area of Potential Effects (APE); identification of the historic properties located within the project's APE; the project's effects to these historic properties; an explanation as to why effects are adverse; and whether such adverse effects can be avoided, minimized, or mitigated. A project location map is included as **Attachment 1**, and detailed mapping of the project's APE is included as **Attachment 2**. Also, provided are copies of correspondence with Section 106 consulting parties.

Ms. Louise Brodnitz  
Re: **Notification of Adverse Effect**

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Should you have any questions regarding the Red Line Project or this letter, please feel free to contact Mr. Daniel Koenig, Environmental Protection Specialist, [daniel.koenig@dot.gov](mailto:daniel.koenig@dot.gov) at (202) 219-3528 or Ms. Gail McFadden-Roberts, Community Planner, [Gail.McFadden-Roberts@dot.gov](mailto:Gail.McFadden-Roberts@dot.gov) at (202) 656-7121.

We look forward to ACHP's response and coordination. Thank you.

Sincerely,

Brigid Hynes-Cherin  
Regional Administrator

cc: John Newton, MTA  
Beth Cole, Maryland Historical Trust  
Tim Tamburrino, Maryland Historical Trust  
Daniel Koenig, Federal Transit Administration  
Gail McFadden-Roberts, Federal Transit Administration

Enclosures: INTRODUCTION

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## **INTRODUCTION**

### **1.0 DESCRIPTION OF THE UNDERTAKING**

The Preferred Alternative is a light rail transit line that would operate from the Centers for Medicare & Medicaid Services (CMS) in Baltimore County to the Johns Hopkins Bayview Medical Campus in Baltimore City. The transitway includes a combination of surface, tunnel, and aerial segments. The alignment, stations, park-and-ride facilities, system elements, tunnel ventilation, operations and maintenance facility, and rail and bus operations plans are described below.

#### **1.1 Alignment**

For presentation purposes, the project study corridor has been divided into five design segments consisting of three at-grade/aerial segments and two tunnel segments totaling approximately 14.1 miles. From west to east, these segments are: West, Cooks Lane Tunnel, US 40, Downtown Tunnel, and East.

##### ***West Segment (2.9 miles)***

The west segment begins in Baltimore County at the CMS Station, a center-platform station, located west of Rolling Road on the south side of Security Boulevard. At the western end of the Preferred Alternative, 380 feet of tail track would be provided beyond the station for the purpose of operation flexibility. The Preferred Alternative would continue east in an exclusive right-of-way adjacent to the south side of Security Boulevard with at-grade crossings at Greengate Road, Brookdale Road, Boulevard Place Shopping Center entrance, and Rolling Road. From Rolling Road, the Preferred Alternative would run adjacent and parallel to the south side of Security Boulevard and along the northern boundary of Security Square Mall crossing Lord Baltimore Drive at grade. The Preferred Alternative would continue to the center platform Security Square Station located immediately west of Belmont Avenue. A park-and-ride lot is proposed at this station and at full development would have 325-375 parking spaces.

The Preferred Alternative would extend east across Belmont Avenue at grade to the west side of I-695 (Baltimore Beltway), continuing southeast and crossing the interchange diagonally on an aerial structure over I-695. The alignment would continue adjacent to the existing parking lots at the Social Security Administration (SSA) west campus and along the north side of the I-70 ramp to I-695. The Preferred Alternative would continue east transitioning onto the existing excess pavement of westbound I-70, just west of Woodlawn Drive, to the center platform SSA Station just east of Woodlawn Drive.

Continuing east, the Preferred Alternative would cross at grade with a roadway connection from I-70 to Parallel Drive and continue on the former roadway pavement to the proposed I-70 Park-and-Ride Station. The station and park-and-ride facility would be located west of Ingleside Avenue and north of I-70 occupying the on-ramps to the former westbound I-70 and a portion of the SSA campus. Initially, the I-70 Park-and-Ride lot would have 650-700 parking spaces with the opportunity for expansion in the future.

Continuing east of the I-70 Park-and-Ride Station, the Preferred Alternative would cross over Ingleside Avenue on an existing bridge and curve in a southeast direction to the tunnel portal for the Cooks Lane Tunnel segment.

##### ***Cooks Lane Tunnel Segment (1.3 miles)***

The Preferred Alternative surface alignment would transition to a 734-foot long portal section in the southwest quadrant of the existing cloverleaf interchange at the end of I-70. This existing interchange loop ramp would be permanently removed as part of the project. The tunnel section would begin through the portal on the northwest side of the intersection of Cooks Lane/Forest Park Avenue/Security Boulevard. The tunnel alignment would continue southeast under the intersection in a twin-bore configuration beneath Cooks Lane, crossing into Baltimore City to north of Coleherne Road, then curve left towards Edmondson Avenue and continue east following the centerline of Edmondson Avenue. The tunnel would continue along the centerline of Edmondson Avenue ascending through a portal section to meet the US 40 surface segment approximately 400 feet west of Swann Avenue.

##### ***US 40 Segment (3.3 miles)***

The US 40 segment would begin after the tunnel portal, continuing east in an exclusive right-of-way along the median of Edmondson Avenue crossing Swann Avenue at grade to the proposed Edmondson Village Station. This center-platform station would be located mid-block between Swann Avenue and North Athol Avenue.

The Preferred Alternative would continue east in the median of US 40 with at-grade crossings at North Athol Avenue, Wildwood Parkway, and North Loudon Avenue to the proposed Allendale Station at the intersection of US 40 and Allendale Street. The Allendale Station would have a split platform with the westbound platform located on the west side of Allendale Street and the eastbound platform located on the east side of the intersection. The Preferred Alternative would continue east at grade across Denison Street and Hilton Street. The alignment would cross over the Hilton Parkway and Gwynns Falls in the center of an existing bridge. Baltimore City is currently developing plans as a separate project from the Red Line project to replace the existing Edmondson Avenue Bridge that will be designed to include accommodations for the Red Line.

The Preferred Alternative would continue east at grade through the Edmondson Avenue (US 40)/Franklin Street intersection and Poplar Grove Streets. The proposed Rosemont Station platform would be located in the center of Edmondson Avenue east of Poplar Grove Street. East of the Rosemont Station, the Preferred Alternative would turn right and traverse south along the center of Franklintown Road. At the intersection of Franklintown Road and Franklin Street, the Preferred Alternative would turn left and continue east along the median of US 40/Franklin Street. This is also the proposed location for the Operations and Maintenance Facility site on the south side of Franklin Street. Following the existing roadway, the Preferred Alternative would split near Wheeler Avenue and continue east diverging to cross under the Amtrak Northeast Corridor. The Preferred Alternative would maintain the existing structures over West Franklin Street and West Mulberry Street with minor modifications to the bridge structures, roadway, and utilities to protect the structures. The eastbound track would be adjacent to the north side of Mulberry Street, crossing under the existing Amtrak Bridge to the West Baltimore MARC Station eastbound platform located at the northwest corner of Smallwood Street and Mulberry Street. The West Baltimore MARC Station westbound platform is located at the southwest corner of Smallwood Street and Franklin Street. The westbound track is adjacent to the south side of Franklin Street. The split tracks would continue east along the edge of the West Baltimore MARC parking lots with separate at-grade crossings of Pulaski Street and Payson Street. The tracks diverge from Franklin and Mulberry Streets and rejoin just west of the North Fulton Avenue Bridge.

The Preferred Alternative would continue east in the median of the existing US 40 lower level roadway. The tracks would split east of the Stricker Street pedestrian bridge onto the eastbound left lane of the US 40 corridors. The proposed Harlem Park Station, a center platform station,



would be located between Calhoun Street and Carey Street. East of Carey Street the tracks would merge back to double-track configuration before passing under the existing pedestrian bridge at Carrollton Avenue. The alignment would continue under the Arlington Avenue Bridge to the portal for the Downtown Tunnel.

#### **Downtown Tunnel Segment (3.4 miles)**

The tunnel would begin in the median of US 40 immediately west of the North Schroeder Street Bridge and would continue east descending into a 1,200-foot-long tunnel portal within the median of US 40. The tunnel would then curve underneath Mulberry Street and continue south, beneath Fremont Avenue to an underground Poppleton Station proposed immediately north of Baltimore Street. The entrance to the station would be located at the northeast corner of the intersection of Fremont Avenue and Baltimore Street.

The tunnel alignment would continue south and curve east, crossing underneath Martin Luther King, Jr. Boulevard to the center of Lombard Street. The tunnel would continue east beneath Lombard Street to an underground Howard Street/University Center Station, proposed immediately east of Howard Street. The entrance to station would be located at the northeast corner of Howard and Lombard Streets. The Preferred Alternative would cross under the existing CSX railroad tunnel beneath Howard Street just west of the proposed station.

The tunnel alignment would continue east to an underground Inner Harbor Station proposed underneath Lombard Street between Light and Calvert Streets. The entrance to the station would be located at the northeast corner of Lombard and Light Streets and along the north side of Lombard Street west of Calvert Street. From this station there would also be a pedestrian tunnel underneath Light Street to provide a direct connection to the Charles Street Metro Station located underneath Baltimore Street.

The alignment would continue underneath Lombard Street until Market Place where the alignment would curve south centered underneath President Street to Fleet Street. The tunnel alignment would then turn east, underneath Fleet Street to an underground Harbor East Station that would be located east of Central Avenue.

The alignment would continue east centered underneath Fleet Street to an underground Fell's Point Station proposed on the west side of Broadway. The entrance to the station would be located in the median of Broadway north of Fleet Street.

The tunnel alignment would continue east underneath Fleet Street to Washington Street and would turn southeast under Chester Street to Boston Street. It would continue southeast underneath Boston Street to a tunnel portal proposed east of the intersection with Montford Avenue/Hudson Street, ascending to the median of Boston Street at surface.

#### **East Segment (3.2 miles)**

The Preferred Alternative would continue southeast at grade in the median of Boston Street to the Canton Station. The Canton Station would be a center platform station located west of the signalized intersection at South Lakewood Avenue.

Boston Street would be developed as one lane in each direction from Montford Avenue to Conkling Street. The Preferred Alternative would continue along the center of Boston Street with at-grade crossings at the signalized intersections of South Lakewood Avenue, South Kenwood Street, Potomac Street (pedestrians only), South East Street, South Clinton Street, and South Conkling Street to the proposed Brewers Hill/Canton Crossing Station. This center platform

station would be located between South Conkling and South Eaton Streets and include a park-and-ride lot with approximately 500-600 parking spaces.

The Preferred Alternative would continue east, at grade across Eaton Street and would transition diagonally on new right-of-way turning north on the west side of Haven Street. The alignment would continue north adjacent to the west side of Haven Street crossing under the O'Donnell Street Bridge into the Canton Railroad right-of-way. The Preferred Alternative would then turn northeast crossing South Haven Street at grade into the Norfolk Southern (NS) right-of-way. The alignment would continue north within the NS right-of-way to the Greentown/Highlandtown Station, a side platform station, which would be located south of Old Eastern Avenue. The Preferred Alternative would occupy the western portion of the Norfolk Southern (NS) right-of-way, a currently inactive railroad right-of-way, referred to as Bear Creek Branch.

The Preferred Alternative would continue north over Eastern Avenue on an existing freight railroad bridge and then ascend and turn east onto a new aerial structure, passing overhead of the NS right-of-way. The structure would cross above Janney Street, Kresson Street, CSX railroad, NS railroad, Oldham Street, Ponca Street, and I-895 to the Johns Hopkins Bayview campus property. The alignment would continue east at grade along the existing alignment of Alpha Commons Drive to the Bayview Campus Station. This center platform station would be located immediately west of Bayview Boulevard. The alignment would turn north at grade on the east side of Bayview Boulevard continuing north adjacent to Bayview Boulevard with at-grade crossings of Nathan Shock Drive, a National Institutes of Health (NIH) driveway, and Lombard Street. The Preferred Alternative would continue north turning northeast along the eastside of I-895 to the proposed Bayview MARC Station, its eastern terminus. A park-and-ride lot with approximately 650 parking spaces is proposed as part of a new Bayview MARC Station, which is a separate project to be implemented by the MTA and Baltimore City. At the eastern end of the alignment, 380 feet of tail track would be provided beyond the station for the purpose of operational flexibility.

#### **Stations**

The Preferred Alternative would include 19 stations, 14 surface and 5 underground. The proposed Red Line station locations have been identified based upon compatibility with surrounding site conditions, intended passenger catchment areas, site circulation, site services and amenities, transit oriented development opportunities, public space availability, future urban plan visioning, community input through the Station Area Advisory Committees (SAACs), and other public outreach. Stations along the alignment would have one of three types of platforms: center, side, and split. All surface station platforms would be approximately 194 feet long, regardless of the type of platform.

Two of the surface stations would be grade-separated from the pedestrian access areas. The Social Security Administration station would be located on an existing bridge embankment with pedestrian access from below. The Harlem Park station would be located in the lower level of US 40, and pedestrians would access the station from Calhoun Street above. These stations would include vertical circulation access elements such as stairs and ramps, and/or elevators to access the platform. The entire project, including the stations, would be designed and constructed in accordance with the Americans with Disabilities Act (ADA) to be fully accessible, with barrier-free and user-friendly access for transit customers and personnel.

Two stations would provide connections to an existing MARC Penn Line: the West Baltimore MARC Station and the proposed Bayview MARC Station. The Inner Harbor Station would provide a connection to existing Charles Center Metro Station. The Howard Street Station would

provide a connection to the existing Central Light Rail Line and the MARC Camden Line station three blocks to the south.

For the underground stations, there are two-level and three-level stations being considered. Three-level stations are proposed in areas where the tunnel alignment is deep because of street utilities, geological conditions, and/or structural requirements. The depth of the tunnel and station vary with the unique site conditions at each of the five underground stations. Patrons would enter from street-level entrances and descend to the public mezzanine level by elevator, escalator, or stairs; pay their fare; and then descend another level to the station platform. Each underground station also has an accompanying ancillary building, which houses mechanical equipment, traction power substations, and ventilation shafts.

The proposed Red Line Stations are summarized in **Table 1**

**Table 1: Red Line Station Summary**

Station Name	Surface Station Type	Platform Type
CMS	At grade	Center
Security Square	At grade with park-and-ride	Center
Social Security Administration	Grade separated	Center
I-70 Park & Ride	At grade with park-and-ride	Center
Edmondson Village	At grade	Center
Allendale	At grade	Split Side
Rosemont	At grade	Center
West Baltimore MARC	At grade with park-and-ride	Side
Harlem Park	Grade separated	Center
Poppleton	Underground, 2-level	Center
Howard Street/ University Center	Underground, 3-level	Center
Inner Harbor	Underground, 2-level	Center
Harbor East	Underground, 3-level	Center
Fell's Point	Underground, 3-level	Center
Canton	At grade	Center
Brewers Hill/ Canton Crossing	At grade with park-and-ride	Center
Highlandtown/Greektown	At grade	Side
Bayview Campus	At grade	Center
Bayview MARC	At grade with park-and-ride	Center

## 1.2 Station Elements

Each station would contain elements and amenities dedicated to the transit operation and convenience and safety of the transit user including: ticket vending machines; shelters or canopies at surface stations; emergency telephones, closed-circuit television; seating, bicycle racks and/or lockers; system signage; and recycling/trash receptacles.

### Architecture

Station canopies, surface stations, shelters, and underground station entrances would be some of the most noticeable elements within the system. The station design methodology is based on a multi-step process that includes a contextual investigation of the project study corridor and its surrounding neighborhoods, identifying land uses, the areas served, its historical significance, and materials that define the fabric of the community. The process also includes analysis of the functional elements of the stations such as: finishes, weather protection, lighting, bike storage,

and transit-specific elements including communications, system operations and maintenance, safety and security, wayfinding, and customer information. The station design would consider a modular "kit of parts" maintaining the transit system identity while allowing a level of "customization" to recognize neighborhood context and integration. The station architecture would incorporate materials that provide system recognition, ease of maintenance and operations, durability, aesthetic quality, while reflecting neighborhood context.

### Station Access

Each station would need to accommodate various access modes: pedestrian, bicycle, bus, and vehicular drop-off. ADA-compliant, accessible routes connecting to each of these modes would be provided and integrated into the topography of the site. Ramps, elevators, and stairs would be incorporated, as required, for access requiring grade change.

### Landscape/Site Design

Station design would incorporate landscape and site design to integrate the station into its surroundings. Materials for hardscape surfaces such as walkways, entry plazas, and retaining walls would be treated similar to, and in conjunction with, architectural elements. Stormwater management and parking facilities would be considered integral parts of the station design and may provide opportunities for sustainable features, environmental site design and landscape focal points.

### Lighting

Lighting at the stations would be provided at various levels. An overall system of lighting consistent throughout the corridor would provide general illumination for safety and wayfinding at the stations. Pedestrian level lighting at sidewalks, pathways, and at the station itself would provide a more focused lighting source and could provide the opportunity to highlight the individual neighborhood identity through the style and location of the fixtures. Feature lighting enhancing particular design elements, such as landscape and art features, would also be considered. A balance between safety, sustainable design practices, and impact on adjacent neighborhoods would be a consideration in lighting design.

### Wayfinding

The primary wayfinding tool in the station would be signage. The objective of the system signing is to direct persons to, through, and out of the system in an efficient, safe, and user-friendly manner using straightforward, clear, and precise methods of organized, logical, and reasonable layouts. Sign communication would be placed carefully and would be standard in dimensions and quantities throughout the Red Line system. The signing would emphasize the Red Line system identity and be consistent with existing MTA signage. Stations, when appropriate, would incorporate signage directing patrons to other modes of transportation, connecting bicycle and pedestrian trails, neighborhood destinations, neighborhood landmarks and historic references, or may also include advertisements.

## 1.3 Park-and-Ride Facilities

Park-and-ride facilities would be constructed at the stations where there is the highest demand for drive-to-transit access. There are five park-and-ride facilities proposed for the Red Line, all of which would be surface parking lots. Two of the five park-and-ride lots would be constructed by others (West Baltimore MARC and Bayview MARC) but Red Line passengers would be able to park at these facilities and ride the Red Line or the MARC. Park-and-ride capacity may be built in phases as demand grows. **Table 2** lists the locations and total built-out capacity anticipated of the five park-and-ride facilities.



**Table 2: Approximate Number of Parking Spaces Proposed at the Park-and-Ride Lots**

Park-and-Ride Facility	Approximate Number of Parking Spaces
Security Square	325-375
I-70	650-700
West Baltimore MARC	700
Brewers Hill/Canton Crossing	500-600
Bayview MARC	650
<b>Approximate total</b>	<b>2825-3025</b>

**1.4 Track Types**

Four types of track are being considered for this project: ballasted, embedded, direct fixation, and green track. Ballasted track consists of rail, fasteners, crossies, and the ballast/subballast bed and would be used in areas in the project study corridor such as on the I-70 right-of-way and along the Norfolk Southern freight tracks on the east side of the project study corridor. Embedded track is completely covered/embedded, except for the top of the rail and would be used at roadway grade crossings such as intersections. Direct fixation is a track construction method in which the rails are directly affixed to a concrete deck or base slab, and would be used for tracks on aerial structures and in tunnels. Green track is defined as a transitway designed for plant material to grow alongside and in between the rails. Green track is being considered in the portions of the project study corridor through residential communities such as along US 40/ Edmondson Avenue and in Canton.

**1.5 Traction Power Substations**

To provide electricity along the line for the light rail vehicles, 17 Traction Power Substations (TPSS) are proposed and would be located along the alignment. The TPSS would require approximately 45-foot by 85-foot sites plus access roads or driveways. A typical TPSS would be constructed of steel housing and depending on the location, could be surrounded by fencing, a brick wall, landscaping, or other forms of aesthetic barriers. Examples of existing TPSS for other light rail projects in the US are shown below.

The TPSS would be spaced along the alignment, approximately one mile apart. Two TPSS locations would be within underground stations and one location would be within the proposed Operations and Maintenance Facility.

**1.6 Crossovers and Signal Control Instrument Houses**

The signal control instrument house (CIH) contains elements of the signaling control system, circuits and equipment required for safe vehicle operation. Currently, eight CIHs are planned along the alignment. The distances between the signal houses vary and are based on the locations of the crossover tracks where light rail vehicles can switch tracks. Another factor that determines the location of the CIHs is the ability to have an unobstructed view between them. The CIH structures are prefabricated steel structures approximately 10 feet by 40 feet and 10 feet high.

**1.7 Overhead Catenary System**

A continuous supply of electrical power is provided to the light rail vehicle by means of the Overhead Catenary System (OCS). This is achieved by the use of overhead conductors (electrified wires) centered over each track and supported by cantilever frame or support wire assemblies attached to steel poles, bolted to concrete foundations. The light rail vehicles collect current from the OCS by means of pantographs affixed to the top of the vehicles that are in continuous contact with the overhead conductors as the vehicles move along the alignment.

The configuration that is anticipated for the OCS throughout the Red Line alignment would be a "simple catenary" system, consisting of a contact wire suspended via hangers from a messenger wire. The standard system height (vertical distance from the contact wire to the messenger wire) is set to maximize the span lengths between supporting poles. The standard wire heights for the Red Line would be 18 feet for the contact wire and 21 feet-6 inches for the messenger wire. Utilizing this configuration, the maximum span length between poles on straight track would be 220 feet. This span length between supports would be reduced, as required, to accommodate track curvature, roadway intersections and other constraints along the alignment.

Additionally, the wire heights would vary along the alignment based on local constraints, particularly low vertical clearances. In areas of restrictive vertical clearance, such as in tunnels and under bridges, the contact wire and messenger wire heights would be reduced to accommodate the restricted height. Typical OCS pole styles proposed for the Red Line would be tapered tubular and wide flange, depending on the surrounding alignment features. Wide flange poles with a galvanized finish would be utilized along industrial and open route sections of the alignment. In residential and commercial sections, tapered tubular steel poles would be employed. The tapered tubular poles would be painted to be consistent with surrounding features, including traffic signal poles and station elements.

The range of tapered tubular pole diameters is expected to be between 9 inches and 15 inches, depending on loading and electrical conduit space requirements. Wide flange poles between 8 inches and 14 inches deep are anticipated. While the heights of the poles would vary based on support and wire configuration, the standard pole height for center supported OCS is expected to be 24 feet.

Wherever possible along the Red Line alignment, OCS poles would be located between the tracks allowing one pole, with back-to-back cantilever arms, to support the overhead conductors for both tracks. Additionally, to maximize efficiency and minimize visual impacts to the travelling public, street lighting luminaires and mast arms would be co-located on OCS poles wherever feasible and advantageous along the alignment. At these joint-use support locations, the OCS pole height would be increased to 27 feet-6 inches to accommodate the 30-foot standard luminaire height.

At locations where it is not feasible to place center supports, such as at locations where the tracks curve through an intersection, side poles with span wire support arrangements would be utilized to support the OCS. In these locations, the traffic signals and street lighting would be co-located with OCS poles, wherever practical, to reduce the impacts to the sidewalk areas. In tunnel sections, the OCS support structures would be affixed to the tunnel roof.

**1.8 Tunnel Ventilation and Fan Plant Facilities**

The underground segments of the project would require a mechanical ventilation system comprised of fans, air plenums, and air shafts that would connect the tunnels and station platform areas to outside air. The tunnel ventilation system for the Red Line would provide acceptable air temperatures throughout the tunnels and underground stations under normal and congested operating conditions. During emergency conditions, such as a fire incident on a train in either the tunnel or the station, the ventilation system would assist in the movement of smoke and heat; facilitate passenger evacuation, and firefighting operations.

Under normal operating conditions, when trains are moving freely through the tunnels and stations during the warmer months, the ventilation approach would rely on the piston effect of

moving trains to generate airflows that would exchange tunnel air with outside air and remove train-generated heat. Under congested or perturbed conditions, when trains are stopped or moving slowly, the ventilation system would prevent tunnel air from reaching temperatures above the maximum design operating temperatures of the onboard equipment.

In the event of a tunnel fire involving a stopped train, the ventilation system would be operated to move fresh outside air toward evacuating passengers, thereby clearing the egress path of smoke. The egress path would lead to points of safety either in the adjacent tunnel, through cross-passageways spaced no more than 800 feet apart, outdoors via a portal or a station. Since the direction of passenger evacuation depends upon the location of the fire relative to the train, the ventilation system would be designed to move air over the length of the train, in either direction.

#### **Cooks Lane Tunnel Segment**

The ventilation system for the Cooks Lane Tunnel segment would utilize a jet fan system. Jet fans would be located over the length of the tunnel spaced no closer than 300 feet apart. Because of limited space in the tunnel above the light rail vehicle, the jet fans and sound attenuators would be located on the tunnel side wall, on the opposite side of the safety walkway. The jet fan system generates longitudinal airflow by intaking low velocity tunnel air and discharging it at high velocity (about 6,000 feet per minute). The jet fans would be reversible to allow airflow to be generated in either direction.

#### **Downtown Tunnel Segment**

To meet the ventilation objectives, the Downtown Tunnel segment would implement a design concept that employs station end fan plants. Each station facility would house two independent shafts, each containing two fans. Each shaft would connect to the tunnels at opposite ends of the station. The fans would be reversible to either supply air to, or exhaust air from, the tunnels. To remove train-generated heat during normal operations when trains are moving freely throughout the system, each shaft would include a fan by-pass system to allow the exchange of tunnel air with outside air.

The fan plant buildings would be up to 60 feet high depending on the station and the ventilation requirements. Each fan plant would be designed to be compatible with surrounding structures. The fan plants would contain the following internal components: transformers for power supply, staircases for access/egress, four fans, a battery room, and a series of silencers above the fans to attenuate their noise.

#### **1.9 Operations and Maintenance Facility**

The Operations and Maintenance Facility (OMF) is where light rail cars would be stored, maintained, and dispatched on their daily routes each day. The OMF would accommodate administrative and light rail operation functions for the Red Line. The site, as currently proposed, would be comprised of 11 existing parcels totaling 20.8 acres in Baltimore City. The OMF would be located along the south side of US 40/Franklin Street centered on Calverton Road between Franklinton Road and Warwick Avenue, and referred to as the Calverton Road site. Currently, these parcels support light industrial uses and would be compatible with the use as the OMF.

The OMF would be comprised of three main buildings, light rail track into and out of the facility site, three CIHs, and two TPSS for the mainline and the site, and a covered fuel station. There would be an area for employee and visitor parking totaling approximately 200 spaces, and the site would be secured and fenced.

The primary activities of the OMF would include:

- Primary access for trains into and out of the yard from the eastbound and westbound mainlines for insertion into revenue service, mid-day storage of vehicles and end-of-day storage of vehicles;
- Train storage for 26 vehicles in the yard that can be expanded to 34 and another ten vehicles inside the maintenance building;
- Train wash facility;
- Yard control on the 2nd floor of the Facilities Maintenance and Transportation Building;
- Welfare facilities for personnel;
- Service and inspection tracks;
- Heavy repair tracks;
- Yard storage that allows for sanding and interior cleaning;
- Fueling for support vehicles;
- Storage for equipment and material;
- Access roadways and parking; and
- Stormwater management.

The maintenance building would include the administrative functions for the Red Line including: operations staff offices, dispatcher work stations, information center, employee break room and/or lunchroom, driver area with lockers, showers, and restrooms. Drivers would use the maintenance building as their home base.

The storage yard portion of the facility is the point of origin and termination for Red Line service. The storage yard includes storage for up to 34 light rail vehicles and MTA support vehicles and a covered exterior storage building.

The maintenance building would include maintenance and repair shops, a body shop, paint booth, interior vehicle cleaning, and exterior car washing. All LRT drivers and other MTA employees would report to this building every time they come to work.

The overall storage and maintenance facility site as currently programmed would include approximately 77,000 square feet of parking, 12,000 square feet of exterior support spaces, 62,700 square feet of light rail vehicle storage, and 251,000 square feet of lead tracks. The MTA would operate three shifts at this facility for some departments. Approximately 300 employees could work out of this facility.

#### **2.0 AREA OF POTENTIAL EFFECTS (APE) AND IDENTIFICATION OF HISTORIC PROPERTIES**

The APE is defined in Section 106 of the NHPA as "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking."

The Red Line Project historic architectural study began in summer 2004. At that time, the APE established by MTA and the Maryland Historic Trust (MHT, the State Historic Preservation



Office) encompassed areas where permanent and temporary project impacts would occur and also included additional areas where potential indirect effects (visual, atmospheric, audible, etc.) on the built environment might occur. The APE initially was determined to be 500 feet from each alignment's center line (i.e., a 1,000-foot buffer centered on each alignment) for areas west of Gwynns Falls Park, and 250 feet from each alignment's center line (i.e., a 500-foot buffer centered on each alignment) for areas east of the park. The wider APE was applied to the suburban areas of Baltimore County and western Baltimore City, while the narrower APE was used for Baltimore City's densely built urban areas. Because of the potential for project changes as alignments were refined, all parties agreed that the APE would change over the course of the project, which is typical Section 106 practice. (Mapping showing the current APE is included as **Attachment 2** – which also includes all historic properties within the APE.)

Within the established APE, detailed Limits of Disturbance (LOD) mapping was generated to define the area of construction-related areas of soil disturbance that had the potential to impact below-ground archeological resources. The project team, in consultation with the staff of MHT, completed a Phase IB Archeological Work Plan which defined 22 areas of archeological sensitivity along the Preferred Alternative – 5 in Baltimore County and 17 in Baltimore City. Each area of archeological sensitivity where the Preferred Alternative would cause ground disturbance has been reviewed and assessed with regard to the potential for encountering archaeological resources during construction of the Red Line LRT project. The results of the completed archeological identification survey work are discussed in more detail in the following sections.

## 2.1 Identification of Historic Properties: Architectural Resources

After historians gathered information on previously identified historic properties, additional research and survey served to identify any built resources more than 45 years of age so they could be evaluated for NRHP eligibility.

MTA submitted the resulting *Cultural Resources Technical Report: Volume 1 -- Red Line Corridor Transit Study: Cultural Resources Reconnaissance Survey* to MHT in April 2005. MHT provided comments in correspondence dated August 25, 2005, and formally concurred with the APE delineation (copies of all correspondence noted are included in **Appendix A**).

MTA later submitted the three volume intensive-level survey *Historic Structures Survey Technical Report* to MHT in February 2006. Comments were received from MHT in correspondence dated March 19, 2007. MTA incorporated MHT's suggested changes and submitted revised DOE Forms to MHT in December 2007.

The Red Line Project was extended to the east in 2007 to the Johns Hopkins Bayview Medical Center in eastern Baltimore City because MTA determined there was sufficient ridership potential. While The APE guidelines previously established for the original survey were applied to the Bayview Extension. Therefore, the APE for was defined to be 250 feet on either side of the center line.

MTA submitted the resulting *Cultural Resources Technical Report: Volume 4 -- Red Line Corridor Transit Study: Bayview Extension Cultural Resources Reconnaissance Survey* to MHT at an April 7, 2008, meeting that included the historians.

MTA then submitted the resulting *Red Line Corridor Transit Study -- Bayview Extension; Historic Architectural Resources Survey* to MHT in February 2010. Comments were received

from MHT in correspondence dated June 9, 2010, that also included follow-up comments for the original intensive-level survey. MTA submitted revised DOE Forms based on MHT comments on May 2, 2012.

Officials selected the Red Line Locally Preferred Alternative (LPA) in August 2009. Although the preliminary LOD remained unknown, historians refined the APE in July 2010 to only include the LPA and excised areas associated with alternatives no longer under consideration. Historians applied the same prior methodology to this revised APE, using either the 500-foot or 250-foot buffer from the centerline as appropriate.

Additional buildings, structures, objects, and districts were identified within the APE for portions of the LPA that were not investigated during the original survey efforts. Historians conducted an additional architectural field survey in December 2010.

In correspondence dated January 17, 2012, MHT concurred with the APE, indicating that the APE width should remain a set distance from the center line of the Preferred Alternative and subsequent LOD information, but that minor APE revisions to accommodate small changes in the LOD would not be required. The agency asked that all properties that would become 50 years old prior to the completion of the project planning process be identified and evaluated; considering the project schedule, all properties built in or before 1963 would be evaluated. This revised year-built guideline would apply to the entire revised APE, requiring re-evaluations in previously surveyed areas.

The design team established the preliminary Red Line LOD in December 2011. Therefore, MTA again refined the APE to now consider the polygon-shaped LOD, rather than the linear project information previously considered. Following prior precedent and MHT recommendations, the new APE was 500 feet on either side of the LOD's outer limits to the west (and inclusive) of Gwynns Falls Park, and 250 feet on either side of the LOD's outer limits to the east of the park. In a meeting attended by MTA, its consultants and historians, and FTA on February 16, 2012, FTA concurred with this APE and the associated documentation approach.

MTA submitted final additional Determination of Eligibility and Short Forms to MHT in May and June 2012; concurrence with these determinations was received on July 26, 2012 (see Appendix A). All determinations of eligibility completed as part of the Red Line met the established MHT documentation standards.

## 3.0 HISTORIC PROPERTIES WITHIN THE APE

### 3.1 Built Historic Properties

After the intensive-level documentation described above, historians have determined that there are a total of 78 built historic properties within the Red Line Project APE. Historic properties include individual properties and districts identified during the previous surveys, and those from the recent supplemental studies. Only one historic property, the Franklinton Road over Dead Run Bridge (SHA #B0096 and MIHP No. BA-2853) is located within Baltimore County. All other historic properties are located in Baltimore City.

Two of the NRHP-listed properties are also National Historic Landmarks (NHL). NHLs are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States. NHLs located within the historic architectural APE are Davidge Hall (MIHP No. B-41)

and the Star-Spangled Banner Flag House (MIHP No. B-15). **Attachment 2** includes detailed mapping showing: 1) the current APE, 2) all historic properties within the APE, and 3) preliminary effects determination notations for each property. **Appendix B** contains a detailed matrix summarizing the determination of effect for each historic property.

### 3.2 Archaeological Resources

MTA and the project team completed a Phase IA Archeological Assessment in 2007, which provided an overall assessment of potential impacts to archeological resources. This report was submitted to MHT, and comments were received on May 19, 2007. A Draft Phase IB Archeological Workplan was prepared outlining the proposed methodology for the effort and submitted to the MHT on April 5, 2012. MHT concurred with the workplan on April 17, 2012. As part of the Phase IB identification effort, archival research, field survey and analysis of the field survey results will be conducted by MTA.

Data collected during the Phase IA archeological study was used to generate a historic context and predictive model for the location of potential prehistoric and historic archaeological sites within the LOD. Areas of low, medium, medium to high and high archaeological potential were defined using regional prehistoric and historic site location prediction models for sites.

Areas assessed with high archeological potential contained favorable conditions for the preservation of intact archeological deposits, whereas areas with low potential exhibited less favorable environmental settings for occupation. These models are all based on the use of hydrology, landforms, soils and slope as a predictor of settlement locations. The models all ranked areas as having high potential if they were:

- Located within 492 feet of a stream
- Located on a slope of less than 15 percent
- Located on well-drained soils
- Located on a south facing aspect

The predictive site location model for historic sites location also defined areas of high potential as:

- Areas where structures are shown on historic maps
- Areas along larger streams that may have been the location of mills
- Well-drained areas along historic roads with a slope of less than 15 percent

In addition to the above models, the development of the predictive model for the Preferred Alternative's LOD also incorporated evidence of prior disturbance, current land use and previously recorded cultural resources to justify areas of high, medium and low cultural resource sensitivity. Interestingly, the Phase IA study found that the process of infilling to create manmade land, as well as the material used in repeated episodes of urban reconstruction, such as from the 1904 Baltimore City fire, have contributed to the preservation of archeological sites. Conversely, the widening of roadways within the heart of the City, such as along Lombard Street, consumed the edges of adjacent lots, introducing impacts into core areas of earlier residential, commercial and industrial activities. A general land use analysis of the LOD was conducted using existing GIS land use data and recent aerial photography. Cultural resource data were compiled from MHT records and historic maps. Environmental setting data was compiled using digital soil data, current aerial photographs and USGS topographic quadrangle maps.

In addition, data regarding subsurface conditions is also being gathered through the archaeological monitoring of project geotechnical borings. Initiated in December 2009, archaeologists, working in conjunction with the geotechnical staff, are recording the soils in geotechnical bores collected from areas of archaeological sensitivity in the LOD. The bores provide a glimpse of the soil stratigraphy in the project setting, including modern and historic fill, as well as the natural subsoil development. The soils information, as well as any archaeological observations, is shared with the project geomorphologist. This monitoring effort is allowing the archeological team to verify the anticipated subsurface conditions in potentially sensitive portions of the alignment, and help to highlight areas of elevated potential or subsurface integrity. For example, soil bores along Boston Street have confirmed significant historic infilling in the setting, but also evidence of the potential for wharves, pilings and other wooden features associated with 19<sup>th</sup> and early 20<sup>th</sup> century maritime activities at the harbor.

#### *Archeology Study Areas within the LOD*

Given the high probability to locate archeological resources, six archeological study areas were defined along the course of the LOD. Volume II of the FEIS contains detailed mapping of the following study areas:

- Archeological Study Area 1, the West Segment, which extends from the western terminus of the Red Line on Security Boulevard (MD 122) to the western Cooks Lane tunnel portal;
- Archeological Study Area 2, the Cooks Lane Tunnel, which extends from the western Cooks Lane tunnel portal to its eastern tunnel portal on Edmondson Avenue (US 40);
- Archeological Study Area 3, the US 40 Segment, which extends from the eastern Cooks Lane tunnel portal on Edmondson Avenue (US 40) to the western tunnel portal on US 40 just east of North Arlington Avenue;
- Archeological Study Area 4, the Downtown Tunnel, which extends from the western Downtown Tunnel portal on US 40 just east of North Arlington Avenue to its eastern portal on Boston Street;
- Archeological Study Area 5, part of the East Segment, which extends from the eastern Downtown Tunnel portal on Boston Street to the western edge of the Johns Hopkins Bayview Medical Center, and;
- Archeological Study Area 6, part of the East Segment, which extends from the western edge of the Johns Hopkins Bayview Medical Center to the eastern terminus of the Red Line.

#### *Archeological Survey*

Archival research will address the cultural context of archeological resources and the land use history of each archeological sensitivity area. The archival research will concentrate on the creation of a general cultural context for all time periods associated with the Preferred Alternative. A review of previous archeological work undertaken within the vicinity of Preferred Alternative will be done in order to identify other archeological sites in the general vicinity.

The proposed archeological field effort will be undertaken in two stages:

- Stage 1, which is currently underway, includes testing of permeable, accessible surface alignment segments within areas of archeological sensitivity in the project LOD. Field surveys employing hand-excavated shovel test pits (STPs) have been conducted at 15 meter intervals within each sensitivity area. It is anticipated that this effort will be undertaken prior to the issuance of the Record of Decision (ROD) based on access to properties.



- Stage 2 would be undertaken after the issuance of the ROD and includes Phase IB identification survey of below-ground impacts, such as tunnel portals, stations and ventilation facilities in the Preferred Alternative, impermeable surfaces, potential Phase II archaeological evaluation studies of archaeological sites identified within Stage 1, and Phase III archaeological data recovery efforts for National Register-eligible sites than cannot be avoided by the impacts of the Preferred Alternative.

Given the potential depth and complexity of these archaeological excavations in an urban environment, MTA will coordinate with FTA and MHT on the proposed excavation methodologies in these areas post-ROD as part of the Final Design and Construction phase of the Project and as outlined in the Section 106 Programmatic Agreement. Additional project elements that might be added to the project during the later stages of design, including potential off-site environmental mitigations sites, would also be addressed during Stage 2 and in the Programmatic Agreement. The Programmatic Agreement will outline the specific archeological commitments in Stage 2 and be executed prior to the issuance of the ROD.

Analysis of the field findings includes the use of numerical techniques and qualitative assessment of the artifacts to evaluate the nature of the artifact deposits identified during testing and their depositional contexts. The goal of the analyses is to determine the integrity of the deposits and their potential to provide new and significant information on the history or prehistory of the locale and region. Recommendations for the National Register eligibility of each sensitivity area and further archeological investigations within each area, if warranted, will be based on the results of these analyses.

As noted, the archaeological survey work will continue to be completed as project plans continue to be developed and property access for surveys is obtained. At the time of this summary, it is estimated that approximately 40% of the identified Archeological Sensitivity areas have been tested. A table and mapping summarizing the status of the archeological survey coverage are included **Attachment 3**.

Although archeological material has been recovered on most the tested areas, with one exception, none of these have been found to possess significantly intact archeological deposits to be considered eligible for the NRHP. The one exception is a late 19th – 20th century historic period farmstead, the Ward Farm site, in Archeological Sensitivity Area BC-4 (between I-70 and Parallel Road), which is being recommended for Phase II evaluation.

#### 4.0 SUMMARY OF EFFECT DETERMINATIONS

As stated above, there were effects assessments conducted on 78 built historic properties. After considering project impacts as they are currently known, the Red Line Project will have no effect on 45 historic properties; no adverse effect on 28 historic properties; and an adverse effect on 5 historic properties (see **Appendix B**). If changes to the project require additional assessments as project changes or refinements are made, a revised effects report will be completed to note any changes in effect determinations. Note that initial project plans resulted in many additional adverse effects, but cultural resources staff members have worked diligently with engineers and transportation planners to avoid and minimize adverse effects to other historic properties.

Under Section 106, a project has a single determination of effect; effects evaluations on individual historic properties within the Area of Potential Effects are conducted to reach the project determination of effect and to inform the Section 4(f) component of the project. At this time, there are five adversely affected historic properties: Poppleton Fire Station; Business and

Government Historic District; South Central Avenue Historic District; Fells Point Historic District; and Public School No. 25. MHT has not yet concurred with these determinations; therefore, it is possible this list may be amended at a later date. Demolition of two contributing buildings will occur within the Business and Government Historic District; all other adverse effects are the result of indirect effects which primarily impact setting. These effects area caused by primarily visual effects relate to the setting.

Based on these individual effects evaluations, the overall project assessment of effects includes a finding that the Red Line Project will have an adverse effect on historic properties. This finding was the subject of discussion during consultation with appropriate Section 106 consulting parties, during Section 106 consultation meetings (September 25, 2012 and October 17, 2012), and included discussion of potential mitigation measures. Consulting party comments related to these recent meetings are still being received and reviewed, and therefore have not yet been incorporated in the discussion of potential mitigation measures identified below. As will be detailed below, Section 106 consultation for this project was initiated during earlier phases and is ongoing (copies of all Section 106 consultation correspondence are included in **Appendix A**).

#### Resolution of Adverse Effects

Mitigation historically has focused on directly addressing adverse effects to individual historic properties and there is merit in this approach in certain instances. However, recent trends employ more creative and holistic mitigation that addresses the greater project adverse effect. Efforts should focus on public education benefits and/or access to the historic preservation study documentation produced in support of the project. Below are potential mitigation measures that use both approaches.

- Historic American Buildings Survey Level II documentation for buildings that will be demolished in the Business and Government Historic District and adjacent to the Poppleton Fire Station.
- Fell's Point Historic District Walking Tour: to be executed as a pamphlet with limited printing and an accompanying smart phone application and website.
- Web-based map hosted by the project showing the locations of all historic properties in the APE; additional existing documentation and any project-related documentation (photographs, DOE forms, NR nominations, HABS/HAER recordation) can be added to the historic property polygons.
- Interpretive work to be incorporated into stations: historic panels and associated smart phone application and website discussing the unique historic properties and history of the neighborhood of each station and showing historic photographs of each area.
- Update the South Central Avenue National Register of Historic Places nomination, including contributing/noncontributing delineations; execute additional National Register nominations for three properties, to be determined by the consulting parties, within the APE that are not formally listed. Focus should be on properties that may benefit from the listing by taking advantage of historic preservation tax credits.
- Bricks and mortar preservation funds for properties in Fell's Point, with possibilities for teaming opportunities with local preservation organizations to maximize public education benefit.
- Transit-oriented development concerns should be addressed within the PA.

- The PA should include provisions for the Maryland Historical Trust to review and comment on station design; PA deliverables; and other project components as appropriate.
- The PA should include a consultation plan for addressing unanticipated adverse effects and project changes; these provisions should be specific enough to avoid re-opening the PA if these issues arise.
- The PA should include a stipulation for monitoring select historic properties for vibration and other construction-related effects to avoid additional adverse effects. These properties would most likely include those proximate to station construction and those likely to experience impacts from tunneling.

Under Section 106 of the NHPA, for an archeological site that has been determined to be eligible for the NRHP, the preferred treatment is in place preservation. However, if avoidance or minimization of impacts is not feasible, intensive Phase III Data Recovery excavation of the site is usually considered to be an appropriate mitigation measure.

#### 6.0 SECTION 106 CONSULTATION

During early phases of the project planning, invitations to participate in the Section 106 process were included in project newsletters and public meeting announcements, which were mailed to property owners in the project area. In order to solicit comments and participation from specific parties likely to be interested in historic, archeological and cultural resources, MTA developed a list of Section 106 interested parties and verified that they were included on the project mailing lists.

Those parties who chose to participate included the Maryland Historical Trust, Baltimore City Commission on Historic and Architectural Preservation (CHAP), Baltimore County Office of Planning (BCOP), Anchorage Homeowners Association, Baltimore Harbor Watershed Association, Canton Community Association, Canton Cove Association, Canton Square Homeowners Association, Waterfront Coalition and the United States General Services Administration.

The *Section 106 – Public Participation Program Technical Report* (April 2006), completed during the Alternatives Analysis/Draft Environmental Impact Statement (AA/DEIS) phase, provided a summary of the coordinated Section 106 and NEPA public Participation process.

At the time the report was generated, the public outreach list included over 240 community organizations, and 31 of these were identified as potential interested or consulting parties in the Section 106 process. With the submission of the first round of technical documents, MTA offered status update meetings with the designated consulting parties (MHT, CHAP and BCOP) to discuss the results of the completed studies and the development of the AA/DEIS.

Meetings were held with MHT (April 7, 2008) and CHAP (May 4, 2008) prior to publication of the September 2008 AA/DEIS; however, BCOP chose not to participate. The meeting provided a detailed overview of the project alignments, the cultural resources within the APE and proposed additional investigations. Copies of these minutes were provided to MHT, and they verified that they represented an accurate summary of the meeting discussions (MHT and CHAP meeting minutes are included in Consultation Correspondence (**Appendix A**)).

Through the development of the AA/DEIS, MTA carried on direct consultation not only with MHT, but with the Baltimore City CHAP and the Baltimore County Office of Planning, who were provided copies of submitted technical reports and invited to agency briefings. In May-June 2009, MTA received correspondence from a group of community organizations, expressing concerns about the project's effect on the Canton Historic District and requesting consulting party status (Anchorage Homeowners Association, Baltimore Harbor Watershed Association, Canton Community Association, Canton Cove Association, Canton Square Homeowners Association and Waterfront Coalition). Obrecht Commercial Real Estate also contacted MTA (September 2009) requesting consulting party status in regard to the Brewer's Hill Historic District. These groups requested and have been granted consulting party status, and have been provided copies of all subsequent technical reports and consultation correspondence related to the Canton and Brewers Hill Historic Districts. All correspondence and reports continued to be provided to the appropriate consultation party agencies Baltimore City (CHAP) and Baltimore County (BCOP).

A round of formal Consulting Party meetings was held as part of the preparation of the FEIS in 2012. Invitations were sent out to all of the Consulting Parties listed above, as well as the original list of Potential Interested Parties used during earlier public outreach efforts. A consolidated list of all Consulting Parties, Potentially Interested Parties and Native American Tribal groups is included as **Attachment 4**. MTA hosted a September 25, 2012 consulting parties meeting to provide an overview of the completed cultural resources studies and to review the identified historic properties. In addition to representatives of the project team, FTA and MTA, attendees at this meeting included representatives of:

- Maryland Historical Trust (Beth Cole and Tim Tamburrino);
- Baltimore Housing, Baltimore City Planning and Development (Robyn Chrabascz);
- Fells Point Preservation Society (Ellen Van Karajan).

A second Consulting Parties meeting was held October 17, 2012, with the purpose of providing an overview of potential project effects and to discuss potential avoidance, minimization and mitigation measures. In addition to representatives of the project team, FTA and MTA, representatives of the following parties also participated.

- Maryland Historical Trust (Beth Cole and Tim Tamburrino);
- Baltimore Housing, Baltimore City Planning and Development (Robyn Chrabascz);
- Fells Point Preservation Society (Ellen Van Karajan);
- Baltimore City CHAP (Kathleen Kotarba, Eric Holcomb and Eddie Leon);
- Baltimore Heritage (Johns Hopkins)
- Baltimore City Planning (Gary Cole).

FTA/MTA has requested that all parties provide written comments at their earliest opportunity. However, as of the drafting of this letter, the only written comments received were from Johns Hopkins of Baltimore Heritage, and are included in Consultation Correspondence (see email message **Appendix A**). As these written comments are still under review, the recommendations provided have yet to be incorporated into project development or mitigation plans.

Another important aspect of the Section 106 consultation process is the involvement of Native American tribal groups that have an interest in the project area, and potential project effects on cultural resources of tribal concern. There are nine federally recognized tribes that have identified parts of Maryland as being of cultural interest, include the Absentee-Shawnee Tribe of Oklahoma, the Delaware Nation, the Delaware Tribe of Indians, the Eastern Shawnee Tribe, the



Oneida Indian Nation, the Onondaga Nation, the Saint Regis Mohawk Tribe, the Shawnee Tribe, and the Tuscarora Nation. In addition there are three non-federally recognized resident tribal groups that have been granted recognition by the State Of Maryland, including Piscataway Indian Nation, Inc., Piscataway Conoy Confederacy and Subtribes, Inc., and the Cedarville Band of Piscataway Indians.

FTA letters inviting all of these groups to participate in the Section 106 process were sent out October 4, 2012. As a result of these letters, FTA was contacted by Brice Obermeyer of the Delaware Tribe Historic Preservation Office, requesting additional information. During subsequent conversations with cultural resources staff, he provided the following comments (see email message in **Appendix A**).

- The Delaware Tribe has an interest in the potential effects of the project, and would like to be considered a consulting party;
- The groups interest is primarily related to potential effects on prehistoric Native American sites,
- Sites of particular concern are those with the potential to contain human remains or objects of cultural patrimony;
- The Delaware asked to be notified if any human remains are inadvertently discovered during the project activities and that the project work cease until we are able to consult;
- They also asked to receive copies of archeological technical reports;
- Finally, they indicated that they were confident that they could participate by correspondence and did not feel that attending the Consulting Parties meeting would be necessary.

FTA also received an email contact from Kim Jumper, Tribal Historic Preservation Officer for the non-resident Shawnee Tribe. As with the Delaware, the Shawnee wished to be informed should any Native American remains be uncovered (Email contact is included in **Appendix A**).


**MARYLAND TRANSIT ADMINISTRATION**
**MARYLAND DEPARTMENT OF TRANSPORTATION**

Martin O'Malley, Governor • Anthony G. Brown, Lt. Governor  
Darrell B. Mobley, Acting Secretary • Ralynn T. Wells, Administrator

September 13, 2012

**NOTICE**

Consultation Pursuant to Section 106

Baltimore Red Line  
Baltimore County and Baltimore City, Maryland

Dear Consulting Party:

Thank you for your interest and participation in the Baltimore Red Line as a Consulting Party (CP). The Maryland Transit Administration (MTA), in cooperation with the Federal Transit Administration (FTA), is preparing a Final Environmental Impact Statement for the Red Line project and conducting supporting investigations. You are receiving this notice because you were previously included as a CP or were identified as a potential CP.

In accordance with Section 106 of the National Historic Preservation Act (16 U.S.C. 470 et seq.), potential project impacts to historic properties are being considered for the Red Line. Section 106 provides for consultation with regulatory agencies, appropriate stakeholders, and the interested public.

This letter is to advise you of the MTA/FTA's Consulting Parties Coordination Plan and upcoming CP meetings. The CP Coordination Plan provides opportunities for a two-way dialogue at important steps in the Section 106 process, including historic resources eligibility determination, project effects determination, and mitigation resolution.

As part of the process, the MTA and FTA will meet with CPs to discuss potential project effects on historic properties and develop mitigation plans. At the first meeting your input will be considered by the MTA, FTA, the Maryland Historical Trust (MHT), and the Baltimore City Commission on Historic and Architectural Preservation (CHAP) prior to MHT concurrence on effects. Following MHT concurrence on effects, you are invited to a second meeting with MTA, FTA, MHT, and CHAP to develop a mitigation plan to resolve potential adverse effects on historic properties. The format of meetings will be a roundtable discussion.

Enclosed are maps depicting the locations of built historic properties within the project's Area of Potential Effects (APE). The APE was delineated in consultation with MHT as part of the

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Consultation Pursuant to Section 106  
Baltimore Red Line  
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Section 106 process. The properties shown on the map are designated as National Historic Landmarks, listed in the National Register of Historic Places (NRHP), or have been determined eligible for listing in the NRHP. The MHT has concurred with these findings. You are invited to review these properties and offer feedback on determinations of eligibility. Effects assessments, which consider the project's impacts, for these historic properties will be forthcoming as part of the Section 106 process.

Listed below are dates, times, and locations of both meetings.

**Meeting #1**

Purpose: Share project information and listed/eligible historic properties within the APE identified, discuss draft effects report findings

Date: Tuesday, September 25, 2012

Time: 3 to 5 PM

Location: Maryland Transit Administration  
Transit Development and Delivery Office  
100 S. Charles Street  
Tower Two, Suite 700  
Baltimore, Maryland 21201  
Rock Creek Conference Room

**Meeting #2**

Purpose: Discuss effects report findings and concurrence, proposed mitigation, and Programmatic Agreement

Date: Wednesday, October 17, 2012

Time: 3 to 5 PM

Location: Maryland Transit Administration  
Transit Development and Delivery Office  
100 S. Charles Street  
Tower Two, Suite 700  
Baltimore, Maryland 21201  
Rock Creek Conference Room



Consultation Pursuant to Section 106  
Baltimore Red Line  
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Should you have questions about the information in this letter or the project, please contact Mr. Ray Moravec at [rmoravec@baltimoreredline.com](mailto:rmoravec@baltimoreredline.com). Thank you for your interest and participation in this project.

#### Invited Consulting Parties

American Institute of Architects	Edmondson Village Shopping Center
Anchorage Homeowners Association	General Services Administration
B&O Railroad Museum	Historic Charles Street Association
Baltimore American Indian Center	Historic Franklinton Association, Inc.
Baltimore Architecture Foundation	Historic Jonestown Business Association
Baltimore City Commission on Historic and Architectural Preservation	Historic Original Northwood Association
Baltimore City Department of Planning	Historical Society of Baltimore County
Baltimore Civil War Museum	Housing Authority of Baltimore City
Baltimore County Department of Planning	Italian Cultural Center, Inc.
Baltimore County Historical Trust, Inc.	Jewish Historical Society of Maryland
Baltimore County Office of Historic Preservation	Jewish Museum of Maryland
Baltimore County Planning Board	Maryland Department of Planning
Baltimore Heritage, Inc.	Maryland Heritage Alliance, Inc.
Baltimore Neighborhoods, Inc.	Maryland Historical Society
Baltimore Public Works Museum	Maryland Historical Trust
Blue Water Baltimore	Mount Vernon Cultural District
Canton Community Association	Neighborhood Planning Committee
Canton Cove Condominium, Inc.	Preservation Maryland
Canton Square Homeowners Association	Preservation Society of Fells Point
Carroll Mansion and Phoenix Shot Tower	Star Spangled Banner Museum
Citizens Planning and Housing Association, Inc.	The Waterfront Partnership
	War Memorial Museum

DIN: RL-80-01-437-00670-00-120913

## Appendix K: Property Impacts



Table K-1: Red Line Property Acquisition Summary

Property Type	Number of Parcels	Area of Fee Simple Partial (Square Feet)	Number of Parcels	Area of Fee Simple Total (Square Feet)
<b>Segment 1: West Segment</b>				
Residential	0	0	0	0
Commercial	8	211,470	1 <sup>1</sup>	0
Industrial	1	45,524	0	0
Institutional	2	24,067	0	0
Governmental	0	0	0	0
<b>Segment 2: Cooks Lane Tunnel Segment</b>				
Residential	0	0	0	0
Commercial	1	4,968	0	0
Industrial	0	0	0	0
Institutional	0	0	0	0
Governmental	0	0	0	0
<b>Segment 3: US 40 Segment</b>				
Residential	97	7,919	0	0
Commercial	10	4,697	2 <sup>2</sup>	8,870
Industrial	0	0	0	0
Institutional	4	2,576	0	0
Governmental	19	26,228	0	0
<b>Segment 4: Downtown Tunnel Segment</b>				
Residential	0	0	0	0
Commercial	1	2,205	6	63,809
Industrial	0	0	0	0
Institutional	0	0	0	0
Governmental	1	54,000	0	0
<b>Segment 5: East Segment</b>				
Residential	4	1,173	0	0
Commercial	3	69,483	0	0
Industrial	12	233,817	2	212,916
Institutional	0	0	0	0
Governmental	5	4,525	1	6,601
<b>Segment 6: Operations and Maintenance Facility</b>				
Residential	0	0	0	0
Commercial	0	0	4	218,846
Industrial	0	0	1	73,018
Institutional	1	421	1	102,247
Governmental	0	0	5	461,421
<b>Project Total</b>	<b>169</b>	<b>693,073</b>	<b>23</b>	<b>1,147,728</b>

<sup>1</sup> Commercial parcel reflects relocation of existing Bank of America ATM from private property being acquired as part of the Security Mall Park-and-Ride; the square footage for the ATM is included under the Partial Property Acquisition column

<sup>2</sup> Commercial parcel reflects two businesses located on the same property.

Table K-2: Summary of Property Easement Requirements

Property Type	Number of Parcels	Area of Permanent Surface/Utility Easement (Square Feet)	Number of Parcels	Area of Temporary Construction Easement (Square Feet)	Number of Parcels	Area of Permanent Sub-Surface Easement (Square Feet)	Number of Parcels	Area of Permanent Aerial Easement (Square Feet)
<b>Segment 1: West Segment</b>								
Residential	0	0	12	9,322	0	0	0	0
Commercial	7	142,979	11	42,086	0	0	0	0
Industrial	1	75,546	1	90,205	0	0	0	0
Institutional	1	31,137	1	11,628	0	0	0	0
Governmental	6	210,855	0	0	0	0	0	0
<b>Segment 2: Cooks Lane Tunnel Segment</b>								
Residential	0	0	0	0	27	14,178	0	0
Commercial	0	0	2	4,382	0	0	0	0
Industrial	0	0	0	0	0	0	0	0
Institutional	0	0	1	4,020	0	0	0	0
Governmental	0	0	1	4,370	0	0	0	0
<b>Segment 3: US 40 Segment</b>								
Residential	0	0	175	24,657	0	0	0	0
Commercial	0	0	9	10,260	0	0	0	0
Industrial	0	0	0	0	0	0	0	0
Institutional	0	0	4	1,825	0	0	0	0
Governmental	0	0	12	33,269	0	0	0	0
<b>Segment 4: Downtown Tunnel Segment</b>								
Residential	0	0	2	33,720	50	5,215	0	0
Commercial	0	0	0	0	35	36,604	0	0
Industrial	0	0	0	0	1	620	0	0
Institutional	0	0	0	0	7	20,675	0	0
Governmental	0	0	0	0	4	4,210	0	0



Table K-2: Summary of Property Easement Requirements

<b>Segment 5: East Segment</b>								
Residential	0	0	3	687	0	0	0	0
Commercial	2	21,714	5	72,293	0	0	0	0
Industrial	11	275,074	23	157,627	0	0	8	39,827
Institutional	0	0	0	0	0	0	0	0
Governmental	0	0	5	12,941	0	0	1	5,091
<b>Segment 6: Operations and Maintenance Facility</b>								
Residential	0	0	0	0	0	0	0	0
Commercial	0	0	0	0	0	0	0	0
Industrial	0	0	1	23,440	0	0	0	0
Institutional	0	0	1	1,836	0	0	0	0
Governmental	0	0	0	0	0	0	0	0
<b>Project Total</b>	<b>28</b>	<b>757,305</b>	<b>269</b>	<b>538,568</b>	<b>124</b>	<b>81,502</b>	<b>9</b>	<b>44,918</b>

Table K-3: Segment 1 - West Segment Acquisitions and Easements

No.	Address	Map/Parcel	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Access Easement (Square Feet)	Comments	Location
1	1918 Winder Rd	94/230	17,201	31,137	0	0	0	Institutional (Chadwick Elementary)	BCO
2	1942 Winder Rd	94/216/8	0	0	0	499	0	Residential	BCO
3	1944 Winder Rd	94/216/7	0	0	0	252	0	Residential	BCO
4	1946 Winder Rd	94/216/6	0	0	0	28	0	Residential	BCO
5	1952 Winder Rd	94/216/3	0	0	0	171	0	Residential	BCO
6	1940 Greengage Rd	94/240/1	0	0	0	1,633	0	Residential	BCO
7	1930 Brookdale Rd	94/221	6,866	0	0	11,628	0	Institutional	BCO
8	7175 Security Blvd	94/175/1	635	0	0	1,384	0	Commercial	BCO
9	7173 Security Blvd	94/175/2	2,056	0	0	3,623	0	Commercial	BCO
10	1 Lenis Ct	94/164/20	0	0	0	51	0	Residential	BCO
11	2000 Kennicott	94/240/B/26	0	0	0	399	0	Residential	BCO
12	7101 Security Blvd	94/175/3A	635	0	0	2,330	0	Commercial	BCO
13	7100 Security Blvd	94/240/A/1/A	581	0	0	2,650	0	Commercial - Chadwick Manor	BCO
14	7091 Security Blvd	94/175/3B	0	0	0	2,381	0	Commercial	BCO
15	1809 Rolling Rd	94/351/5	5,280	0	19,686	7,800	0	Commercial	BCO
16	6965 Security Blvd	94/350/D,C	174,894	0	32,686	12,862	0	Commercial	BCO
16A	6965 Security Blvd	94/350/D,C	0	0	0	0	0	Commercial	BCO
17	6901 Security Blvd	94/350	8,994	0	6,292	2,172	51,949	Commercial	BCO
18	Security Blvd	94/350/A	18,395	0	19,905	1,382	9,382	Commercial	BCO
19	6901 Security Blvd	94/350/2	0	0	0	5,102	3,079	Commercial	BCO
20	1500 Woodlawn Dr	95/23	45,524	0	0	90,205	75,546	Industrial	BCO



Table K-3: Segment 1 - West Segment Acquisitions and Easements

No.	Address	Map/Parcel	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Access Easement (Square Feet)	Comments	Location
21	Security Blvd	95/164	0	20,856	0	0	0	Governmental	BCO
22	Eberhart Ave	95/158	0	95,716	0	0	0	Governmental	BCO
23	Ingleside Ave	95/226/15,19, 19.5	0	50,247	0	0	0	Governmental	BCO
24	1733 Langford Rd	95/239/BC/13	0	0	0	2,632	0	Residential	BCO
25	1660 Ingleside Ave	95/294	0	0	0	400	0	Commercial	BCO
26	1638 Ingleside Ave	95/226/5	0	0	0	146	0	Residential	BCO
27	1636 Ingleside Ave	95/226/4	0	0	0	821	0	Residential	BCO
28	1630 Ingleside Ave	95/226/3, 3.5	0	0	0	1,066	0	Residential	BCO
29		95/226	0	27,378	0	0	0	Governmental	BCO
30		95/226/1	0	6,423	0	0	0	Governmental	BCO
31		95/226/13	0	10,235	0	0	0	Governmental	BCO
32	1640 Ingleside Ave	95/163	0	0	0	1,624	0	Residential	BCO

Table K-4: Segment 2 - Cooks Lane Tunnel Segment Property Acquisitions and Easements

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Access Easement (Square Feet)	Comments	Location
33	1699 Forest Park Ave	95/29	0	0	0	2,092	0	Commercial	BCO
34	1215 Cooks Lane	7900F/47	0	280	0	0	0	Residential	BC
35	1213 Cooks Lane	7900F/46	0	113	0	0	0	Residential	BC
36	1211 Cooks Lane	7900F/45	0	112	0	0	0	Residential	BC
37	1209 Cooks Lane	7900F/44	0	197	0	0	0	Residential	BC
38	1207 Cooks Lane	7900F/43	0	194	0	0	0	Residential	BC
39	1205 Cooks Lane	7900F/42	0	107	0	0	0	Residential	BC
40	1203 Cooks Lane	7900F/41	0	106	0	0	0	Residential	BC
41	1201 Cooks Lane	7900F/40	0	168	0	0	0	Residential	BC
42	1118 Cooks Lane	7993A/49J	0	184	0	0	0	Residential	BC
43	1116 Cooks Lane	7993A/49I	0	116	0	0	0	Residential	BC
44	1114 Cooks Lane	7993A/49H	0	132	0	0	0	Residential	BC
45	1112 Cooks Lane	7993A/49G	0	333	0	0	0	Residential	BC
46	1110 Cooks Lane	7993A/49F	0	381	0	0	0	Residential	BC
47	1108 Cooks Lane	7993A/49E	0	178	0	0	0	Residential	BC
48	1106 Cooks Lane	7993A/49D	0	178	0	0	0	Residential	BC
49	1104 Cooks Lane	7993A/49C	0	175	0	0	0	Residential	BC
50	1102 Cooks Lane	7993A/49B	0	169	0	0	0	Residential	BC
51	1100 Cooks Lane	7993A/49A	0	340	0	0	0	Residential	BC
52	1052 Cooks Lane	7993A/49	0	174	0	0	0	Residential	BC
53	1050 Cooks Lane	7993A/48	0	77	0	0	0	Residential	BC
54	4813 & 4815 Coleherne Rd	7900E/73/72	0	1,232	0	0	0	Residential	BC



Table K-4: Segment 2 - Cooks Lane Tunnel Segment Property Acquisitions and Easements

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Access Easement (Square Feet)	Comments	Location
55	4818 Edmondson Ave	7900E1M (formerly 1876)	0	3,263	0	0	0	Residential	BC
56	4816 Edmondson Ave	7900E/1L (formerly 1876)	0	2,458	0	0	0	Residential	BC
57	4814 Edmondson Ave	7900E/1K (formerly 1876)	0	1,715	0	0	0	Residential	BC
58	4812 Edmondson Ave	7900E/1J (formerly 1876)	0	1,098	0	0	0	Residential	BC
59	4810 Edmondson Ave	7900E/1I (formerly 1876)	0	569	0	0	0	Residential	BC
60	4808 Edmondson Ave	7900E/1H (formerly 1876)	0	129	0	0	0	Residential	BC
61	4707 Edmondson Ave	8030F/1	0	0	0	4,020	0	Institutional	BC
62	4707 Edmondson Ave	8030F-1A	0	0	0	4,370	0	Governmental	BC
63	4624 Edmondson Ave	7900/1	4968	0	0	2,290	0	Commercial	BC

Table K-5: Segment 3 - US 40 Segment Property Acquisitions and Easements

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Access Easement (Square Feet)	Comments	Location
64	4610 Edmondson Ave	7900/004A	0	0	0	629	0	Commercial	BC
65	4594 Edmondson Ave	7958/029A	0	0	0	1,111	0	Commercial (Shell Gas)	BC
66	4404 Edmondson Ave	7958/29	0	0	0	3,374	0	Commercial	BC
67	4501 Edmondson Ave	2550A/2	17,683	0	0	1,323	0	Governmental	BC
68	4330 Edmondson Ave	7958/028A	0	0	0	143	0	Governmental (Enoch Pratt)	BC
69	4301 Woodbridge Rd	7958/001	0	0	0	191	0	Institutional	BC
70	501 N Athol Ave	2550/4	150	0	0	5,368	0	Governmental	BC
71	537 Wildwood Pkwy	2295/50	132	0	0	220	0	Residential	BC
72	4023 Edmondson Ave	2295/1	0	0	0	80	0	Residential	BC
73	4021 Edmondson Ave	2295/3	0	0	0	80	0	Residential	BC
74	4019 Edmondson Ave	2295/4	0	0	0	80	0	Residential	BC
75	4017 Edmondson Ave	2295/5	0	0	0	80	0	Residential	BC
76	4015 Edmondson Ave	2295/7	0	0	0	62	0	Residential	BC
77	4013 Edmondson Ave	2295/8	0	0	0	67	0	Residential	BC
78	4011 Edmondson Ave	2295/9	0	0	0	67	0	Residential	BC
79	4009 Edmondson Ave	2295/10	0	0	0	56	0	Residential	BC
80	4007 Edmondson Ave	2295/11	0	0	0	56	0	Residential	BC
81	4005 Edmondson Ave	2295/12	0	0	0	56	0	Residential	BC
82	4003 Edmondson Ave	2295/13	0	0	0	56	0	Residential	BC
83	4001 Edmondson Ave	2295/14	0	0	0	140	0	Residential	BC
84	4022 Edmondson Ave	2489/31	0	0	0	63	0	Residential	BC
85	4020 Edmondson Ave	2489/30	0	0	0	63	0	Residential	BC
86	4018 Edmondson Ave	2489/29	0	0	0	63	0	Residential	BC
87	4016 Edmondson Ave	2489/28	0	0	0	66	0	Residential	BC



Table K-5: Segment 3 - US 40 Segment Property Acquisitions and Easements

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Access Easement (Square Feet)	Comments	Location
88	4014 Edmondson Ave	2489/27	0	0	0	77	0	Residential	BC
89	4012 Edmondson Ave	2489/26	0	0	0	77	0	Residential	BC
90	4010 Edmondson Ave	2489/25	0	0	0	77	0	Residential	BC
91	4008 Edmondson Ave	2489/24	0	0	0	77	0	Residential	BC
92	4006 Edmondson Ave	2489/23	0	0	0	77	0	Residential	BC
93	4004 Edmondson Ave	2489/22	0	0	0	77	0	Residential	BC
94	4002 Edmondson Ave	2489/21	0	0	0	77	0	Residential	BC
95	4000 Edmondson Ave	2489/20	0	0	0	77	0	Residential	BC
96	3939 Edmondson Ave	2294/10	154	0	0	110	0	Residential	BC
97	3937 Edmondson Ave	2294/9	154	0	0	110	0	Residential	BC
98	3935 Edmondson Ave	2294/8	154	0	0	110	0	Residential	BC
99	3933 Edmondson Ave	2294/7	154	0	0	110	0	Residential	BC
100	3931 Edmondson Ave	2294/6	154	0	0	110	0	Residential	BC
101	3929 Edmondson Ave	2294/5	154	0	0	110	0	Residential	BC
102	3927 Edmondson Ave	2294/4	154	0	0	110	0	Residential	BC
103	3925 Edmondson Ave	2294/3	154	0	0	110	0	Residential	BC
104	3923 Edmondson Ave	2294/2	154	0	0	110	0	Residential	BC
105	3921 Edmondson Ave	2294/1	154	0	0	110	0	Residential	BC
106	3919 Edmondson Ave	2293/1	154	0	0	110	0	Residential	BC
107	3917 Edmondson Ave	2293/2	154	0	0	110	0	Residential	BC
108	3915 Edmondson Ave	2293/3	154	0	0	110	0	Residential	BC
109	3913 Edmondson Ave	2293/4	154	0	0	110	0	Residential	BC
110	3911 Edmondson Ave	2293/5	154	0	0	110	0	Governmental	BC
111	3909 Edmondson Ave	2293/6	154	0	0	110	0	Residential	BC
112	3907 Edmondson Ave	2293/7	154	0	0	110	0	Residential	BC
113	3905 Edmondson Ave	2293/8	154	0	0	110	0	Residential	BC

Table K-5: Segment 3 - US 40 Segment Property Acquisitions and Easements

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Access Easement (Square Feet)	Comments	Location
114	3903 Edmondson Ave	2293/9	154	0	0	110	0	Residential	BC
115	3901 Edmondson Ave	2293/10	154	0	0	110	0	Residential	BC
116	3819 Edmondson Ave	2292/10	154	0	0	110	0	Residential	BC
117	3817 Edmondson Ave	2292/9	154	0	0	110	0	Residential	BC
118	3815 Edmondson Ave	2292/8	154	0	0	110	0	Residential	BC
119	3813 Edmondson Ave	2292/7	154	0	0	110	0	Residential	BC
120	3811 Edmondson Ave	2292/6	154	0	0	110	0	Residential	BC
121	3809 Edmondson Ave	2292/5	154	0	0	110	0	Residential	BC
122	3807 Edmondson Ave	2292/4	154	0	0	110	0	Residential	BC
123	3805 Edmondson Ave	2292/3	154	0	0	110	0	Residential	BC
124	3803 Edmondson Ave	2292/2	154	0	0	110	0	Residential	BC
125	3801 Edmondson Ave	2292/1	154	0	0	110	0	Residential	BC
126	3727 Edmondson Ave	2292A/14	21	0	0	105	0	Residential	BC
127	3725 Edmondson Ave	2292A/13	21	0	0	105	0	Residential	BC
128	3723 Edmondson Ave	2292A/12	21	0	0	105	0	Residential	BC
129	3721 Edmondson Ave	2292A/11	21	0	0	105	0	Residential	BC
130	3719 Edmondson Ave	2292A/10	21	0	0	105	0	Residential	BC
131	3717 Edmondson Ave	2292A/9	21	0	0	105	0	Residential	BC
132	3715 Edmondson Ave	2292A/8	21	0	0	105	0	Residential	BC
133	3713 Edmondson Ave	2292A/7	21	0	0	105	0	Residential	BC
134	3711 Edmondson Ave	2292A/6	21	0	0	105	0	Residential	BC
135	3709 Edmondson Ave	2292A/5	21	0	0	105	0	Residential	BC
136	3707 Edmondson Ave	2292A/4	21	0	0	105	0	Residential	BC
137	3705 Edmondson Ave	2292A/3	21	0	0	105	0	Residential	BC
138	3703 Edmondson Ave	2292A/2	21	0	0	105	0	Governmental	BC
139	3701 Edmondson Ave	2292A/1	21	0	0	105	0	Residential	BC



Table K-5: Segment 3 - US 40 Segment Property Acquisitions and Easements

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Access Easement (Square Feet)	Comments	Location
140	3730 Edmondson Ave	2487/30	0	0	0	210	0	Residential	BC
141	3728 Edmondson Ave	2487/29	0	0	0	210	0	Residential	BC
142	3726 Edmondson Ave	2487/28	0	0	0	210	0	Residential	BC
143	3724 Edmondson Ave	2487/27	0	0	0	210	0	Residential	BC
144	3722 Edmondson Ave	2487/26	0	0	0	210	0	Residential	BC
145	3720 Edmondson Ave	2487/25	0	0	0	210	0	Residential	BC
146	3718 Edmondson Ave	2487/24	0	0	0	210	0	Residential	BC
147	3716 Edmondson Ave	2487/23	0	0	0	210	0	Residential	BC
148	3714 Edmondson Ave	2487/22	0	0	0	210	0	Residential	BC
149	3712 Edmondson Ave	2487/21	0	0	0	210	0	Residential	BC
150	3710 Edmondson Ave	2487/20	0	0	0	210	0	Residential	BC
151	3708 Edmondson Ave	2487/19	0	0	0	210	0	Residential	BC
152	3706 Edmondson Ave	2487/18	0	0	0	210	0	Residential	BC
153	3704 Edmondson Ave	2487/17	0	0	0	210	0	Residential	BC
154	3702 Edmondson Ave	2487/16	0	0	0	210	0	Residential	BC
155	3700 Edmondson Ave	2487/15	0	0	0	210	0	Residential	BC
156	3635 Edmondson Ave	2290A/18	23	0	0	233	0	Residential	BC
157	3633 Edmondson Ave	2290A/17	18	0	0	180	0	Residential	BC
158	3631 Edmondson Ave	2290A/16	18	0	0	180	0	Residential	BC
159	3629 Edmondson Ave	2290A/15	72	0	0	126	0	Residential	BC
160	3627 Edmondson Ave	2290A/14	18	0	0	180	0	Residential	BC
161	3625 Edmondson Ave	2290A/13	18	0	0	180	0	Residential	BC
162	3623 Edmondson Ave	2290A/12	18	0	0	180	0	Residential	BC
163	3621 Edmondson Ave	2290A/11	18	0	0	180	0	Residential	BC
164	3619 Edmondson Ave	2290A/10	18	0	0	180	0	Residential	BC
165	3617 Edmondson Ave	2290A/9	18	0	0	180	0	Residential	BC

Table K-5: Segment 3 - US 40 Segment Property Acquisitions and Easements

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Access Easement (Square Feet)	Comments	Location
166	3615 Edmondson Ave	2290A/8	18	0	0	180	0	Residential	BC
167	3613 Edmondson Ave	2290A/7	18	0	0	180	0	Residential	BC
168	3611 Edmondson Ave	2290A/6	18	0	0	180	0	Residential	BC
169	3609 Edmondson Ave	2290A/5	18	0	0	180	0	Residential	BC
170	3607 Edmondson Ave	2290A/4	18	0	0	180	0	Residential	BC
171	3605 Edmondson Ave	2290A/3	0	0	0	198	0	Residential	BC
172	3603 Edmondson Ave	2290A/2	0	0	0	198	0	Residential	BC
173	3601 Edmondson Ave	2290A/1	0	0	0	256	0	Residential	BC
174	3624 Edmondson Ave	2486/35	0	0	0	210	0	Residential	BC
175	3622 Edmondson Ave	2486/36	0	0	0	202	0	Residential	BC
176	3620 Edmondson Ave	2486/37	0	0	0	200	0	Residential	BC
177	3618 Edmondson Ave	2486/38	0	0	0	200	0	Residential	BC
178	3616 Edmondson Ave	2486/39	0	0	0	200	0	Residential	BC
179	3614 Edmondson Ave	2486/40	0	0	0	200	0	Residential	BC
180	3612 Edmondson Ave	2486/41	0	0	0	210	0	Residential	BC
181	3529 Edmondson Ave	2284/11D	120	0	0	407	0	Institutional	BC
182	3527 Edmondson Ave	2284/11C	63	0	0	105	0	Residential	BC
183	3525 Edmondson Ave	2284/11B	63	0	0	105	0	Residential	BC
184	3523 Edmondson Ave	2284/11A	63	0	0	105	0	Residential	BC
185	3521 Edmondson Ave	2284/11	63	0	0	105	0	Residential	BC
186	3519 Edmondson Ave	2284/10	63	0	0	105	0	Residential	BC
187	3517 Edmondson Ave	2284/9	63	0	0	105	0	Residential	BC
188	3515 Edmondson Ave	2284/8	63	0	0	105	0	Residential	BC
189	3513 Edmondson Ave	2284/7	63	0	0	105	0	Residential	BC
190	3511 Edmondson Ave	2284/6	63	0	0	105	0	Residential	BC
191	3509 Edmondson Ave	2284/5	63	0	0	105	0	Residential	BC



Table K-5: Segment 3 - US 40 Segment Property Acquisitions and Easements

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Access Easement (Square Feet)	Comments	Location
192	3507 Edmondson Ave	2284/4	63	0	0	105	0	Residential	BC
193	3505 Edmondson Ave	2284/3	63	0	0	105	0	Residential	BC
194	3503 Edmondson Ave	2284/2	63	0	0	105	0	Residential	BC
195	3501 Edmondson Ave	2284/1	63	0	0	105	0	Institutional	BC
196	3600 W Franklin St	2285/24	7,516	0	0	0	0	Governmental	BC
197	3534 Edmondson Ave	2485/1J	0	0	0	220	0	Residential	BC
198	3532 Edmondson Ave	2485/1I	0	0	0	218	0	Residential	BC
199	3530 Edmondson Ave	2485/1H	0	0	0	218	0	Residential	BC
200	3528 Edmondson Ave	2485/1G	0	0	0	218	0	Residential	BC
201	3526 Edmondson Ave	2485/1F	0	0	0	218	0	Residential	BC
202	3524 Edmondson Ave	2485/1E	0	0	0	218	0	Residential	BC
203	3522 Edmondson Ave	2485/1D	0	0	0	218	0	Residential	BC
204	3520 Edmondson Ave	2485/1C	0	0	0	220	0	Residential	BC
205	3436 Edmondson Ave	2484/19	0	0	0	228	0	Residential	BC
206	3434 Edmondson Ave	2484/18	0	0	0	224	0	Residential	BC
207	3432 Edmondson Ave	2484/17	0	0	0	224	0	Residential	BC
208	3430 Edmondson Ave	2484/16	0	0	0	224	0	Residential	BC
209	3428 Edmondson Ave	2484/15	0	0	0	224	0	Residential	BC
210	3426 Edmondson Ave	2484/14	0	0	0	224	0	Residential	BC
211	3424 Edmondson Ave	2484/13	0	0	0	215	0	Residential	BC
212	3422 Edmondson Ave	2484/12	0	0	0	140	0	Residential	BC
213	3420 Edmondson Ave	2484/11	0	0	0	148	0	Residential	BC
214	3418 Edmondson Ave	2484/10	0	0	0	148	0	Residential	BC
215	3416 Edmondson Ave	2484/9	0	0	0	148	0	Residential	BC
216	3414 Edmondson Ave	2484/8	0	0	0	148	0	Residential	BC
217	3412 Edmondson Ave	2484/7	0	0	0	148	0	Residential	BC

Table K-5: Segment 3 - US 40 Segment Property Acquisitions and Easements

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Access Easement (Square Feet)	Comments	Location
218	3410 Edmondson Ave	2484/6	0	0	0	148	0	Residential	BC
219	3408 Edmondson Ave	2484/5	0	0	0	148	0	Residential	BC
220	3406 Edmondson Ave	2484/4	0	0	0	148	0	Residential	BC
221	3404 Edmondson Ave	2484/3	0	0	0	150	0	Residential	BC
222	3402 Edmondson Ave	2484/2	0	0	0	150	0	Residential	BC
223	3400 Edmondson Ave	2484/1	0	0	0	150	0	Residential	BC
224	3335 Edmondson Ave	2280/18	72	0	0	0	0	Residential	BC
225	3333 Edmondson Ave	2280/17	69	0	0	0	0	Residential	BC
226	3331 Edmondson Ave	2280/16	69	0	0	0	0	Residential	BC
227	3329 Edmondson Ave	2280/15	69	0	0	0	0	Residential	BC
228	3327 Edmondson Ave	2280/14	69	0	0	0	0	Residential	BC
229	3325 Edmondson Ave	2280/13	69	0	0	0	0	Residential	BC
230	3323 Edmondson Ave	2280/12	69	0	0	0	0	Residential	BC
231	3321 Edmondson Ave	2280/11	69	0	0	0	0	Residential	BC
232	3319 Edmondson Ave	2280/10	69	0	0	0	0	Residential	BC
233	3317 Edmondson Ave	2280/9	69	0	0	0	0	Residential	BC
234	3315 Edmondson Ave	2280/8	69	0	0	0	0	Residential	BC
235	3313 Edmondson Ave	2280/7	69	0	0	0	0	Residential	BC
236	3311 Edmondson Ave	2280/6	69	0	0	0	0	Residential	BC
237	3309 Edmondson Ave	2280/5	69	0	0	0	0	Residential	BC
238	3307 Edmondson Ave	2280/1	71	0	0	0	0	Residential	BC
239	500 N Hilton Street	2280/32, I	104	0	0	0	0	Governmental	BC
240	501 N Hilton Street	2280/32, II	100	0	0	0	0	Governmental	BC
241	502 N Hilton Street	2280/32, III	60	0	0	0	0	Governmental	BC
242	3050 Edmondson Ave	2475/26	0	0	0	77	0	Residential	BC
243	3048 Edmondson Ave	2475/25	0	0	0	72	0	Residential	BC



Table K-5: Segment 3 - US 40 Segment Property Acquisitions and Easements

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Access Easement (Square Feet)	Comments	Location
244	3046 Edmondson Ave	2475/24	0	0	0	72	0	Residential	BC
245	3044 Edmondson Ave	2475/23	0	0	0	72	0	Residential	BC
246	3042 Edmondson Ave	2475/22	0	0	0	72	0	Residential	BC
247	3040 Edmondson Ave	2475/21	0	0	0	72	0	Residential	BC
248	3038 Edmondson Ave	2475/20	0	0	0	72	0	Residential	BC
249	3036 Edmondson Ave	2475/19	0	0	0	72	0	Residential	BC
250	3034 Edmondson Ave	2475/18	0	0	0	72	0	Residential	BC
251	3032 Edmondson Ave	2475/17	0	0	0	72	0	Residential	BC
252	3030 Edmondson Ave	2475/16	0	0	0	72	0	Residential	BC
253	3028 Edmondson Ave	2475/15	0	0	0	72	0	Residential	BC
254	3026 Edmondson Ave	2475/14	0	0	0	72	0	Residential	BC
255	3024 Edmondson Ave	2475/13	0	0	0	72	0	Residential	BC
256	3022 Edmondson Ave	2475/12	0	0	0	72	0	Residential	BC
257	3020 Edmondson Ave	2475/11	0	0	0	74	0	Residential	BC
258	3018 Edmondson Ave	2475/10	0	0	0	75	0	Residential	BC
259	3016 Edmondson Ave	2475/9	0	0	0	75	0	Residential	BC
260	3014 Edmondson Ave	2475/8	0	0	0	75	0	Residential	BC
261	3012 Edmondson Ave	2475/7	0	0	0	75	0	Residential	BC
262	3010 Edmondson Ave	2475/6	0	0	0	84	0	Residential	BC
263	3008 Edmondson Ave	2475/5	0	0	0	75	0	Residential	BC
264	3006 Edmondson Ave	2475/4	0	0	0	75	0	Residential	BC
265	3004 Edmondson Ave	2475/3	0	0	0	75	0	Residential	BC
266	3002 Edmondson Ave	2475/2	0	0	0	75	0	Residential	BC
267	3000 Edmondson Ave	2475/1	0	0	0	80	0	Residential	BC

Table K-5: Segment 3 - US 40 Segment Property Acquisitions and Easements

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Access Easement (Square Feet)	Comments	Location
268	3001 Edmondson Ave	2183D/002	0	0	0	1,122	0	Institutional (Western Cemetery)	BC
269	2837 Edmondson Ave	2217/18A	29	0	0	99	0	Commercial	BC
270	2801 Edmondson Ave	2217/18	1,333	0	0	2,984	0	Commercial	BC
271	530 N Franklinton Rd	2217/14B	221	0	0	356	0	Commercial	BC
272	2753 Edmondson Ave	2213A/001	171	0	0	0	0	Commercial (Chicago Pizza and Grill)	BC
273	2740 Lauretta Ave	2213A/44A	177	0	0	0	0	Commercial	BC
274	509 Franklinton Rd	2213A/64	223	0	0	0	0	Institutional	BC
275	2750 W Franklin St	2213A/63	8,870	0	0	0	0	Commercial	BC
275A	2750 W Franklin St	2213A/63	0	0	0	0	0	Commercial	BC
277	2601 W Franklin St	2209/1, PT 1	2,170	0	0	0	0	Institutional	BC
289	2525 W Franklin St	2207/6, PT 6	917	0	0	650	0	Commercial (Enes Outlets)	BC
290	2515 W Franklin St	2207/2, PT 5	840	0	0	600	0	Commercial (McD Parking)	BC
291	2501 W Franklin St	2207/1, PT 4	516	0	0	457	0	Commercial (McDonalds)	BC
292	2601 W Franklin St	CITY	70	0	0	0	0	Governmental	BC
293	2425 W Franklin St	2202/22	480	0	0	0	0	Commercial	BC
294	2415 W Franklin St	2202/20	13	0	0	0	0	Commercial	BC
295	2212 W Saratoga St	0144/7	492	0	0	1,625	0	Residential	BC



Table K-5: Segment 3 - US 40 Segment Property Acquisitions and Easements

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Access Easement (Square Feet)	Comments	Location
296	400 N Smallwood St	2157/1	0	0	0	1,184	0	Governmental (WB MARC Park & Ride)	BC
297		2157/1A	0	0	0	2,636	0	Governmental (WB MARC Park & Ride)	BC
298		2157/1B	0	0	0	404	0	Governmental (WB MARC Park & Ride)	BC
299		2157/2	0	0	0	271	0	Governmental (WB MARC Park & Ride)	BC
300		2157/3	0	0	0	167	0	Governmental (WB MARC Park & Ride)	BC
301		2157/4	0	0	0	14,769	0	Governmental (WB MARC Park & Ride)	BC
302	401 N Smallwood St	130/1A	0	0	0	6,789	0	Governmental (WB MARC Park & Ride)	BC
303	2438 W Franklin St	2205/095	36	0	0	0	0	Residential	BC
304	2436 W Franklin St	2205/094	37	0	0	0	0	Residential	BC
305	2434 W Franklin St	2205/093	37	0	0	0	0	Governmental	BC
306	2432 W Franklin St	2205/092	37	0	0	0	0	Residential	BC
307	2430 W Franklin St	2205/091	37	0	0	0	0	Residential	BC

Table K-5: Segment 3 - US 40 Segment Property Acquisitions and Easements

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Access Easement (Square Feet)	Comments	Location
308	2428 W Franklin St	2205/090	37	0	0	0	0	Governmental	BC
309	2426 W Franklin St	2205/089	37	0	0	0	0	Governmental	BC
310	2424 W Franklin St	2205/088	37	0	0	0	0	Residential	BC
311	2422 W Franklin St	2205/087	37	0	0	0	0	Residential	BC
312	2420 W Franklin St	2205/086	37	0	0	0	0	Residential	BC
313	2418 W Franklin St	2205/085	37	0	0	0	0	Governmental	BC
314	2416 W Franklin St	2205/084	37	0	0	0	0	Governmental	BC
315	2414 W Franklin St	2205/083	37	0	0	0	0	Governmental	BC
316	2412 W Franklin St	2205/082	37	0	0	0	0	Residential	BC
317	2410 W Franklin St	2205/081	37	0	0	0	0	Residential	BC
318	2408 W Franklin St	2205/080	37	0	0	0	0	Governmental	BC
319	2406 W Franklin St	2205/079	37	0	0	0	0	Governmental	BC
320	2404 W Franklin St	2205/078	37	0	0	0	0	Governmental	BC
321	2402 W Franklin St	2205/077	37	0	0	0	0	Governmental	BC
322	2400 W Franklin St	2205/076	36	0	0	0	0	Residential	BC



Table K-6: Segment 4 - Downtown Tunnel Segment Property Acquisitions and Easements

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Access Easement (Square Feet)	Comments	Location
323	Corner Of Freemont & Mulberry	158/46	0	135	0	0	0	Residential	BC
324	318 N Freemont Ave	158/45	0	10	0	0	0	Residential	BC
325	5 N Fremont Ave	626/29	5,916	0	0	0	0	Commercial	BC
326	764 W Baltimore St	626/28	1,707	0	0	0	0	Commercial	BC
327	762 W Baltimore	626/27	1,291	0	0	0	0	Commercial	BC
328	132 N Fremont Ave	188/34	0	90	0	0	0	Residential	BC
329	116 N Fremont Ave	188/41	0	15	0	0	0	Residential	BC
330	803 Vine St	188/44	0	80	0	0	0	Residential	BC
331	800 W Fayette St	188/49	0	90	0	0	0	Residential	BC
332	801 W Fayette St	203/110	0	220	0	0	0	Institutional	BC
333	12 N Fremont Ave	203/116	0	25	0	0	0	Institutional	BC
334	10 N Fremont Ave	203/117	0	20	0	0	0	Institutional	BC
335	800 W Baltimore St	203/1	0	330	0	0	0	Commercial	BC
336	801 W Baltimore St	220/1	0	460	0	0	0	Commercial	BC
337	804 Hollins St	220/30	0	25	0	0	0	Residential	BC
338	733 W Redwood St	651/9	0	18,160	0	0	0	Institutional	BC
339	712 W Lombard St & 20 Penn St	651/1, 4-7	0	1,225	0	0	0	Institutional	BC
340	111 S Greene St	630/5	0	945	0	0	0	Institutional	BC
341	101 S Paca St	666/2	0	1,850	0	0	0	Governmental	BC
342	501 W Baltimore St	630/17	0	80	0	0	0	Institutional	BC
343	36 S Paca St	630/19	0	100	0	0	0	Commercial	BC
344	321 W Lombard St	666/1	0	455	0	0	0	Governmental	BC

Table K-6: Segment 4 - Downtown Tunnel Segment Property Acquisitions and Easements

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Access Easement (Square Feet)	Comments	Location
345	201 W Baltimore St	644/1	54,000	0	0	0	0	Governmental (Arena Garage)	BC
346	301 W Lombard St	667/2	0	1,695	0	0	0	Commercial	BC
347	100 Hopkins Place	668/1	0	10	0	0	0	Commercial	BC
348	221 W Lombard St	668/13	0	550	0	0	0	Commercial	BC
349	100 S Hanover St	669/1	0	730	0	0	0	Governmental	BC
350	100 S Charles St	670/1	0	1,520	0	0	0	Commercial	BC
351	114 E Lombard St	661/10	1,945	0	0	0	0	Commercial	BC
352	108 E Lombard St	661/11	1,950	0	0	0	0	Commercial	BC
353	40 South Gay St	1371/1	0	1,175	0	0	0	Governmental	BC
354	301 E Lombard St	1381/2	0	4,240	0	0	0	Commercial	BC
355	115 Market Place	1385/1	0	55	0	0	0	Commercial	BC
356	101 Constellation Way	1386/1	0	4,255	0	0	0	Commercial	BC
357	801 Eastern Ave	1439/1	0	13,925	0	0	0	Commercial	BC
358	900 Fleet St	1440/9	0	2,520	0	0	0	Commercial	BC
359	506 S Central Ave	1441/6	0	95	0	0	0	Commercial	BC
360	600 Eden St	1804/1	51,000	0	0	0	0	Commercial	BC
361	1434 Fleet St	1443/37	0	670	0	0	0	Commercial	BC
362	524 S Broadway St	1445/12/2	2,205	0	0	0	0	Commercial	BC
363	600 S Broadway St	1810/1	0	475	0	0	0	Commercial	BC
364	1633 Fleet St	1810/59	0	110	0	0	0	Commercial	BC
365	1635 Fleet St	1810/63	0	110	0	0	0	Commercial	BC
366	1637 Fleet St	1810/64	0	110	0	0	0	Commercial	BC
367	1639 Fleet St	1810/65	0	110	0	0	0	Commercial	BC
368	1641 Fleet St	1810/66	0	125	0	0	0	Commercial	BC



Table K-6: Segment 4 - Downtown Tunnel Segment Property Acquisitions and Easements

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Access Easement (Square Feet)	Comments	Location
369	1401 Eastern Ave	1443/1	0	1,100	0	0	0	Commercial	BC
370	1401 Eastern Ave	1443/46	0	590	0	0	0	Commercial	BC
371	Fleet St	1828/1	0	315	0	0	0	Commercial	BC
372	1806 Fleet St	1781/10	0	10	0	0	0	Commercial	BC
373	1810 Fleet St	1781/9	0	25	0	0	0	Commercial	BC
374	1814 Fleet St	1781/8	0	20	0	0	0	Residential	BC
375	1816 Fleet St	1781/7	0	20	0	0	0	Residential	BC
376	1818 Fleet St	1781/6	0	20	0	0	0	Residential	BC
377	1820 Fleet St	1781/5	0	20	0	0	0	Residential	BC
378	1824 Fleet St	1781/3	0	25	0	0	0	Residential	BC
379	1826 Fleet St	1781/2	0	30	0	0	0	Residential	BC
380	1828 Fleet St	1781/1	0	45	0	0	0	Residential	BC
381	1900 Fleet St	1782/27	0	15	0	0	0	Residential	BC
382	1902 Fleet St	1782/26	0	18	0	0	0	Residential	BC
383	1904 Fleet St	1782/25	0	24	0	0	0	Residential	BC
384	1906 Fleet St	1782/24	0	32	0	0	0	Residential	BC
385	1908 Fleet St	1782/23	0	36	0	0	0	Residential	BC
386	1910 Fleet St	1782/22	0	42	0	0	0	Residential	BC
387	1912 Fleet St	1782/21	0	25	0	0	0	Residential	BC
388	1914 Fleet St	1782/20	0	38	0	0	0	Residential	BC
389	1916 Fleet St	1782/19	0	20	0	0	0	Commercial	BC
390	1918 Fleet St	1782/18	0	22	0	0	0	Commercial	BC
391	1920 Fleet St	1782/17	0	26	0	0	0	Residential	BC
392	1922 Fleet St	1782/16	0	30	0	0	0	Residential	BC
393	1924 Fleet St	1782/15	0	30	0	0	0	Commercial	BC
394	1926 Fleet St	1782/14	0	30	0	0	0	Commercial	BC

Table K-6: Segment 4 - Downtown Tunnel Segment Property Acquisitions and Easements

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Access Easement (Square Feet)	Comments	Location
395	1928 Fleet St	1782/13	0	30	0	0	0	Commercial	BC
396	2000 Fleet St	1783/31	0	85	0	0	0	Residential	BC
397	2002 Fleet St	1783/30	0	85	0	0	0	Residential	BC
398	2004 Fleet St	1783/29	0	85	0	0	0	Residential	BC
399	2006 Fleet St	1783/28	0	85	0	0	0	Residential	BC
400	2008 Fleet St	1783/27	0	85	0	0	0	Residential	BC
401	2010 Fleet St	1783/26	0	85	0	0	0	Residential	BC
402	2012 Fleet St	1783/25	0	122	0	0	0	Commercial	BC
403	2014 Fleet St	1783/24	0	110	0	0	0	Residential	BC
404	2016 Fleet St	1783/18	0	105	0	0	0	Residential	BC
405	2018 Fleet St	1783/19	0	95	0	0	0	Residential	BC
406	2020 Fleet St	1783/20	0	82	0	0	0	Residential	BC
407	2022 Fleet St	1783/21	0	62	0	0	0	Residential	BC
408	2024 Fleet St	1783/22	0	40	0	0	0	Residential	BC
409	2023 Fleet St	1831/12	0	5	0	0	0	Residential	BC
410	2025 Fleet St	1831/13	0	620	0	0	0	Residential	BC
411	2027 Fleet St	1831/14	0	25	0	0	0	Residential	BC
412	2029 Fleet St	1831/15	0	50	0	0	0	Residential	BC
413	2031 Fleet St	1831/16	0	90	0	0	0	Residential	BC
414	2033 Fleet St	1831/17	0	120	0	0	0	Residential	BC
415	2035 Fleet St	1831/18	0	150	0	0	0	Residential	BC
416	2037 Fleet St	1831/19	0	175	0	0	0	Residential	BC
417	2039 Fleet St	1831/20	0	250	0	0	0	Commercial	BC
418	2041 Fleet St	1831/21	0	300	0	0	0	Commercial	BC
419	2043 Fleet St	1831/22	0	385	0	0	0	Residential	BC
420	2045 Fleet St	1831/23	0	615	0	0	0	Residential	BC



Table K-6: Segment 4 - Downtown Tunnel Segment Property Acquisitions and Easements

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Access Easement (Square Feet)	Comments	Location
421	2047 Fleet St	1831/24	0	425	0	0	0	Residential	BC
422	2049 Fleet St	1831/25	0	440	0	0	0	Residential	BC
423	2051 Fleet St	1831/26	0	1,480	0	0	0	Commercial	BC
424	2101 Boston St	1901/14	0	815	0	0	0	Commercial	BC
425	2107 Boston St	1901/13	0	620	0	0	0	Industrial	BC
426	Boston St	1902C/41	0	0	0	33,125	0	Residential	BC
427	2521 Boston St	1902/C/42	0	0	0	595	0	Residential	BC
428	2050 Fountain St	1831/28	0	55	0	0	0	Residential	BC
429	2048 Fountain St	1831/29	0	145	0	0	0	Residential	BC

Table K-7: Segment 5 - East Segment Property Acquisitions and Easements

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Air Rights Easement (Square Feet)	Comments	Location
430	2400 Boston St	1876/001A	0	0	0	49	0	Commercial	BC
431	2501 Boston St	1902C/042	0	0	0	595	0	Commercial	BC
432	2515 Boston St	1902C/049	1,022	0	0	406	0	Residential	BC
433	2610 Boston St	1876B/001	1,413	0	0	11,673	0	Commercial	BC
434	2601 Boston St	1902E/001	2,341	0	0	2,470	0	Governmental	BC
435	2626 Boston St	1888/001	6,601	0	0	0	0	Governmental (TPSS)	BC
436	2719 O'Donnell	1889/019	591	0	0	1,575	0	Governmental St Casimir City Park	BC
437	1204 S Kenwood Ave	1889/018	32	0	0	82	0	Residential	BC
438	N S Boston St	1889/018A	89	0	0	199	0	Residential	BC
439	2711 Boston St	1902E/080	30	0	0	0	0	Residential	BC
440	3001 Boston St	1902F/001	720	0	0	4,719	0	Governmental Canton Waterfront Park	BC
441	3501 Boston St	6505/001	6,362	0	0	9,010	0	Industrial	BC
442	3400 Boston St	6492/013	0	0	0	504	0	Industrial	BC
443	ES of S Haven St SEC of O'Donnel	6498A/001/012	162,982	27,047	0	23,087	0	Industrial	BC
444	S Baylis	6498/004	1,549	0	0	0	0	Industrial	BC
445	1025 S Haven St	6543A/007	1,751	371	0	656	0	Industrial	BC
446	3901 Dillon St	6474/002	183,956	0	0	0	0	Industrial Overflo Warehouse	BC



Table K-7: Segment 5 - East Segment Property Acquisitions and Easements

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Air Rights Easement (Square Feet)	Comments	Location
447	801 S Haven St	6458/003	0	3,101	0	3,653	0	Industrial	BC
448	Between S Haven St and Janney St	PSC #75	0	145,396	0	45,601	6,421	Industrial NS RR Corridor	BC
449	715 S Haven St	6458/001	0	748	0	1,138	0	Industrial Aerosol Liquid & Packaging	BC
450	601 Haven St	6428A/001	0	0	0	2,833	0	Industrial FKA Pacorini Metals	BC
451	513 S Haven St	6428A/022	0	0	0	699	0	Industrial	BC
452	4118 Eastern Ave	6317/001	396	0	0	675	0	Governmental City Pump Station	BC
453	401 S Haven 315 S Haven 301 S Haven	6317/011, 6309/003, 6309/001	0	7,163	0	4,139	0	Industrial Monumental Supply	BC
454	311 S Haven St	6309/002	0	1,819	0	1,372	0	Industrial	BC
455	261 S Haven St	6308/001	159	0	0	3,944	2,039	Industrial Truck Driving School	BC
456	250 S Kresson St	6319A/002	1,447	0	0	4,885	6,282	Industrial	BC
457	210 S Janney	6319A/003	0	0	0	77	0	Industrial Chesapeake Machine Co.	BC
458	4201 E Pratt St	6319A/004	28,960	0	0	0	0	Industrial Cross Wiping Cloth	BC
459	115 S Kresson St	6320/005	1,328	0	0	3,719	4,160	Industrial	BC

Table K-7: Segment 5 - East Segment Property Acquisitions and Easements

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Air Rights Easement (Square Feet)	Comments	Location
460	Between S Kresson St and Oldham St	PSC #10	0	0	0	1,883	2,993	Industrial	BC
461	4501 E Lombard St	6320E/021	1,431	0	0	2,978	3,324	Industrial	BC
462	Between S Kresson St and Oldham St	PSC #65	0	0	0	1,651	2,626	Industrial	BC
463	160 Oldham St	6320E/001	3,339	0	0	9,936	11,982	Industrial Serv-U, Inc.	BC
464	5100 Eastern Ave	6332/014	46,902	3,032	0	50,977	0	Commercial	BC
465	201 Oldham St	6332/005	477	0	0	3,502	5,091	Governmental Oldham Bus Facility	BC
466	101 Bayview Blvd	6332/11B /A/D	21,168	18,682	0	8,999	0	Commercial	BC
467	5500 E Lombard St	6333/030	3,486	13,961	0	6,020	0	Industrial (Picor)	BC
468	5600 E Lombard St	6333/014	44,781	65,034	0	22,906	0	Industrial	BC
469	6000 E Lombard St	6333/019	0	2,777	0	4,290	0	Industrial	BC
470	5400 E Lombard St	6333/030A	5,202	7,657	0	2,646	0	Industrial	BC



**Table K-8: Segment 6 - Operations and Maintenance Facility Property Acquisitions and Easements**

No.	Address	Map/Parcel Block/Lot	Area of Fee Simple (Square Feet)	Area of Permanent Surface Easement (Square Feet)	Area of Permanent Utility Easement (Square Feet)	Area of Temporary Construction Easement (Square Feet)	Area of Permanent Access Easement (Square Feet)	Comments	Location
276	2601 W Franklin St	2209/1A	421	0	0	1,836	0	Institutional	BC
278	WS N Warwick Avenue	2209/1B	73,018	0	0	23,440	0	Industrial	BC
279	229 N Franklinton Rd	2215/2	95,614	0	0	0	0	Commercial	BC
280	241 N Franklinton Rd	2215/4	53,797	0	0	0	0	Commercial	BC
281	2701 W Franklin St	2215/5	24,089	0	0	0	0	Commercial	BC
282	239 N Franklinton Rd	2215/3	45,346	0	0	0	0	Commercial	BC
283	301 N Calverton Rd	2209/3	102,247	0	0	0	0	Institutional	BC
284	225 N Franklinton Rd	2215/1	83,930	0	0	0	0	Governmental	BC
285	240 N Calverton Rd	2215/6	56,715	0	0	0	0	Governmental	BC
286	222 N Calverton Rd	2215/7	40,598	0	0	0	0	Governmental	BC
287	231-241 N Calverton Rd	2209/2	203,774	0	0	0	0	Governmental	BC
288	301 N Franklinton Rd	2215/4A	76,404	0	0	0	0	Governmental	BC